

# **The American Journal of Pharmaceutical .... Education ....**

**The Proceedings Number of the Fifty-sixth Annual Meeting,  
held in Miami Beach, Florida on May 1-3, 1955**

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**THE OFFICIAL PUBLICATION OF THE AMERICAN  
ASSOCIATION OF COLLEGES OF PHARMACY**

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**"The primary purpose of an education is not to enable a man to make money—unless at the same time it shows him how to use it for the benefit of others. Likewise, an education gives knowledge and power to one who acquires it and the ability to enjoy the better things of life, but one's entire personality shrivels and dries up if such knowledge and power is used selfishly and can create a dangerous and perilous influence if wrongly used to the detriment and enslavement of others."—Alfred Whitman Claflin, L.L.D., President Rhode Island College of Pharmacy and Allied Sciences, to the 1955 graduating class.**

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**Volume 19**

**Summer, 1955**

**Number 3**

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# INSTITUTIONS HOLDING MEMBERSHIP IN THE AMERICAN ASSOCIATION OF COLLEGES OF PHARMACY

## Alabama

School of Pharmacy  
Alabama Polytechnic Institute (1905)\*  
Auburn  
Dean L. S. Blake  
Division of Pharmacy  
Howard College (1908)  
7125 Second Ave. S.  
Birmingham 6  
Director Woodrow R. Byrum

## Arizona

College of Pharmacy  
University of Arizona (1953)  
Tucson 11  
Dean Willis R. Brewer

## Arkansas

School of Pharmacy  
University of Arkansas (1903)  
10th and Lewis Streets  
Little Rock  
Dean Stanley G. Mittelsaetdt

## California

College of Pharmacy  
University of California (1948)  
The Medical Center  
San Francisco 22  
Dean T. C. Daniels  
School of Pharmacy  
University of Southern California (1918)  
3518 University Avenue  
Los Angeles 7  
Dean Alvah G. Hall

## Colorado

College of Pharmacy  
University of Colorado (1921)  
Boulder  
Dean Charles F. Poe

## Connecticut

College of Pharmacy  
University of Connecticut (1935)  
Storrs  
Dean H. G. Hewitt

## District of Columbia

School of Pharmacy  
George Washington University (1900)  
2125 H Street Northwest  
Washington 6  
Dean Charles W. Bliven

College of Pharmacy  
Howard University (1906)  
500 W. Street Northwest  
Washington 1  
Dean Chauncey I. Cooper

## Florida

School of Pharmacy  
Florida Agricultural and Mechanical  
University (1964)  
Tallahassee  
Dean Howard McClain, Jr.

College of Pharmacy  
University of Florida (1933)  
Gainesville  
Dean P. A. Foote

## Georgia

Southern College of Pharmacy, Inc.  
(1945)  
223 Walton Street Northwest  
Atlanta 3  
Dean M. A. Chambers  
School of Pharmacy  
University of Georgia (1928)  
Athens  
Dean Kenneth L. Waters

## Idaho

College of Pharmacy  
Idaho State College (1927)  
Pocatello  
Dean I. W. Rowland

## Illinois

College of Pharmacy  
University of Illinois (1906)  
808 South Wood Street  
Chicago 12  
Dean E. R. Serles

## Indiana

College of Pharmacy  
Butler University (1927)  
Indianapolis 7  
Dean K. L. Kaufman  
School of Pharmacy  
Purdue University (1901)  
Lafayette  
Dean Glenn L. Jenkins

## Iowa

College of Pharmacy  
Drake University (1943)  
Des Moines 11  
Dean Byrl E. Benton  
College of Pharmacy  
State University of Iowa (1901)  
Iowa City  
Dean Louis C. Zopf

## Kansas

School of Pharmacy  
University of Kansas (1900)  
Lawrence  
Dean J. Allen Reese

## Kentucky

College of Pharmacy  
University of Kentucky (1900)  
104 West Chestnut Street  
Louisville 2  
Dean Earl P. Stone

## Louisiana

New Orleans College of Pharmacy  
Loyola University (1921)  
6363 St. Charles Avenue  
New Orleans 18  
Dean John F. McCloskey

College of Pharmacy  
Xavier University (1923)  
Washington and Pine Streets  
New Orleans 18  
Dean Lawrence F. Ferring

## Maryland

School of Pharmacy  
University of Maryland (1900)  
32 South Greene Street  
Baltimore 1  
Dean Noel E. Foss

\*Denotes year institution was admitted to the Association.



# THE AMERICAN JOURNAL OF PHARMACEUTICAL EDUCATION

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Number 3

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## Places of Meeting

1. Richmond, Va., May 8-10, 1900
2. St. Louis, Mo., September 19-20, 1901
3. Philadelphia, Pa., September 12-15, 1902
4. Mackinac Island, Mich., August 3-5, 1903
5. Kansas City, Mo., September 7-8, 1904
6. Atlantic City, N. J., September 5-7, 1905
7. Indianapolis, Ind., September 5-6, 1906
8. New York, N. Y., September 4-5, 1907
9. Hot Springs, Ark., September 8-10, 1908
10. Los Angeles, Calif., August 17-18, 1909
11. Richmond, Va., May 4-5, 1910
12. Boston, Mass., August 16-17, 1911
13. Denver, Colo., August 20-22, 1912
14. Nashville, Tenn., August 20-21, 1913
15. Detroit, Mich., August 25-26, 1914
16. San Francisco, Calif., August 6-7, 1915
17. Philadelphia, Pa., September 1-2, 1916
18. Indianapolis, Ind., August 27-28, 1917
19. Chicago, Ill., August 12-13, 1918
20. New York, N. Y., August 25-26, 1919
21. Washington, D. C., May 5-6, 1920
22. New Orleans, La., September 5-6, 1921
23. Cleveland, Ohio, August 14-15, 1922
24. Asheville, N. C., September 3-4, 1923
25. Buffalo, N. Y., August 25-26, 1924
26. Des Moines, Iowa, August 24-25, 1925
27. Philadelphia, Pa., September 13-14, 1926
28. St. Louis, Mo., August 22-23, 1927
29. Portland, Me., August 20-21, 1928
30. Rapid City, S. Dak., August 26-27, 1929
31. Baltimore, Md., May 5-6, 1930
32. Miami, Fla., July 27-28, 1931
33. Toronto, Canada, August 22-23, 1932
34. Madison, Wis., August 28-29, 1933
35. Washington, D. C., May 7-8, 1934
36. Portland, Ore., August 5-6, 1935
37. Dallas, Texas, August 24-25, 1936
38. New York, N. Y., August 16-17, 1937
39. Minneapolis, Minn., August 22-23, 1938
40. Atlanta, Ga., August 21-22, 1939
41. Richmond, Va., May 6-7, 1940
42. Detroit, Mich., August 18-19, 1941
43. Denver, Colo., August 17-18, 1942
44. Columbus, Ohio, September 9-10, 1943
45. Cleveland, Ohio, September 7-8, 1944
46. Washington, D. C., (Executive Committee, only), Nov. 8-10, 1945
47. Pittsburgh, Pa., August 25-27, 1946
48. Milwaukee, Wis., August 24-25, 1947
49. San Francisco, Calif., August 8-10, 1948
50. Jacksonville, Fla., April 24-26, 1949
51. Atlantic City, N. J., April 29-May 2, 1950
52. Buffalo, N. Y., August 26-28, 1951
53. Philadelphia, Pa., August 21-22, 1952
54. Salt Lake City, Utah, August 16-18, 1953
55. Boston, Mass., August 22-24, 1954
56. Miami Beach, Fla., May 1-3, 1955

# Past Officers of the Association

## PRESIDENTS

*Albert A. Prescott.....	1900-01	*Andrew G. DuMez.....	1928-29
*Joseph P. Remington....	1901-02	*J. Grover Beard.....	1929-30
*Edward Kremers .....	1902-03	*Julius W. Sturmer.....	1930-31
*Henry H. Rusby.....	1903-04	*Townes R. Leigh.....	1931-32
*George B. Kauffman.....	1904-05	Charles H. Stocking.....	1932-33
*Henry M. Whelpley.....	1905-06	*L. D. Havenhill.....	1933-34
*James H. Beal.....	1906-07	Ernest Little .....	1934-35
*John T. McGill.....	1907-08	Robert C. Wilson.....	1935-36
*Henry P. Hynson.....	1908-09	*Theodore J. Bradley....	1936-37
*William M. Searby.....	1909-10	*William G. Crockett.....	1936-37
*Julius O. Schlotterbeck..	1910-12	Hugh C. Muldoon.....	1937-38
*Albert H. Clark.....	1912-13	Earl R. Serles.....	1938-39
*Albert Schneider .....	1913-14	Charles H. Rogers.....	1939-40
*Frederick J. Wulling.....	1914-15	*H. Evert Kendig.....	1940-41
*Harry V. Army.....	1915-16	Rudolph A. Kuever.....	1941-42
Rufus A. Lyman.....	1916-17	Howard C. Newton.....	1942-43
*Henry Kraemer .....	1917-18	Forest J. Goodrich.....	1943-44
*Charles B. Jordan.....	1918-19	Glenn L. Jenkins.....	1944-46
*Wortley F. Rudd.....	1919-20	Henry S. Johnson.....	1946-47
Wilber J. Teeters.....	1920-21	Arthur H. Uhl.....	1947-48
*Clair A. Dye.....	1921-22	J. Lester Hayman.....	1948-49
*Charles H. LaWall.....	1922-23	Bernard V. Christensen..	1949-50
*Charles W. Johnson.....	1923-24	Hugo H. Schaefer.....	1950-51
*Washington H. Zeigler...	1924-25	J. Allen Reese.....	1951-52
Edward H. Kraus.....	1925-26	Troy C. Daniels.....	1952-53
David B. R. Johnson.....	1926-27	Edward C. Reif.....	1953-54
Edward Spease .....	1927-28	Joseph B. Burt.....	1954-55

## VICE-PRESIDENTS

*Joseph P. Remington....	1900-01	Charles E. F. Mollett....	1928-29
*Edward Kremers.....	1901-02	Earl R. Serles.....	1938-39
*Henry H. Rusby.....	1902-03	Henry A. Langenhan....	1930-31
*George B. Kauffman.....	1903-04	Edward D. Davy.....	1931-32
*C. Lewis Diehl.....	1904-06	Robert C. Wilson.....	1932-33
*John T. McGill.....	1906-07	Ernest Little .....	1933-34
*Clement B. Lowe.....	1907-08	Antone O. Mickelsen.....	1934-35
*Alviso B. Stevens.....	1908-09	Homer C. Washburn.....	1935-36
*Elie H. LaPierre.....	1909-10	*William G. Crockett.....	1936-37
Wilber J. Teeters.....	1910-11	Elmer L. Hammond.....	1937-38
*Albert H. Clark.....	1911-12	James M. Dille.....	1938-39
*Albert Schneider .....	1912-13	*Marion L. Jacobs.....	1939-40
Edsel A. Ruddiman.....	1913-14	Eugene O. Leonard.....	1940-41
*Harry V. Army.....	1914-15	Perry A. Foote.....	1941-42
Rufus A. Lyman.....	1915-16	A. B. Lemon.....	1942-43
*Theodore J. Bradley.....	1916-17	Henry S. Johnson.....	1943-44
*Charles E. Caspari.....	1917-18	*Gordon L. Curry.....	1944-46
William Mansfield .....	1918-19	William F. Sudro.....	1946-47
Julius A. Koch.....	1919-20	John F. McCloskey.....	1947-48
*Washington H. Zeigler...	1920-21	J. Allen Reese.....	1948-49
*Evander F. Kelly.....	1921-22	Thomas D. Rowe.....	1949-50
Charles H. Stocking.....	1922-23	Harold G. Hewitt.....	1950-51
*Edward V. Howell.....	1923-24	Troy C. Daniels.....	1951-52
Robert P. Fischelis.....	1924-25	L. David Hiner.....	1952-53
*J. Grover Beard.....	1925-26	Kenneth L. Waters.....	1953-54
*Andrew G. DuMez.....	1926-27	Chauncey I. Cooper.....	1954-55
Henry M. Faser.....	1927-28		
*Deceased.			

### SECRETARY-TREASURER

*Wymond H. Bradbury.....1900-01	*Theodore J. Bradley.....1917-22
*Wilbur L. Scoville.....1901-04	Zada M. Cooper.....1922-42
*Julius O. Schlotterbeck.....1904-08	Clark T. Eidsmoe.....1942-47
*George C. Diekman.....1908-10	Louis C. Zopf.....1947-53
*Charles W. Johnson.....1910-13	Richard A. Deno.....1953-
Wilber J. Teeters.....1913-17	

### CHAIRMEN OF EXECUTIVE COMMITTEE

*James H. Beal.....1900-03	*Charles B. Jordan.....1923-36
*Henry M. Whelpley.....1903-05	Ernest Little.....1936-41
*William A. Puckner.....1905-08	Charles H. Rogers.....1941-43
Julius A. Koch.....1908-19	B. V. Christensen.....1943-48
*Henry Kraemer.....1919-20	Joseph B. Burt.....1948-53
Rufus A. Lyman.....1920-23	Louis C. Zopf.....1953-

\*Deceased.

**The American Board of Clinical Chemistry, Inc.**, held its annual meeting at Henry Ford Hospital, Detroit 2, Michigan on May 20-21, 1955. Three clinical chemists successfully passed the examination given by the Board last October. This brings the total number of certified clinical chemists to 241.

A Complete Directory of Certified Clinical Chemists and instructions to Applicants for Certification may be obtained by addressing the Secretary-Treasurer, Dr. O. H. Gaebler, at the above address. They will be sent without charge to hospital departments or other laboratories which engage in clinical chemistry.

**The Inter-American Foundation for Postgraduate Education**, 342 Madison Ave., New York City, announces that fellowships totaling \$11,400 have been awarded to seven physicians from Argentina, Chile, Peru and Mexico. The funds have been provided through a special grant from the Gustavus and Louis Pfeiffer Research Foundation of New York City. After the physicians have finished their training they will return to universities in their respective countries for teaching and research. During the past two years this Foundation has awarded twenty fellowships and supplemental grants which are supported by contributions from drug companies, general industry and foundations. The Foundation was established to help improve medical education in the Latin American countries and promote friendly inter-American relationships. The Foundation is mentioned here as a possible source of fellowships for Latin-American scholars in the pharmaceutical area who might wish assistance for study in our institutions.—Ed.

# American Association of Colleges of Pharmacy

## Honorary Members, Officers, Committees and Representatives, 1955-1956

### OFFICERS

President.....	Linwood F. Tice, Philadelphia, Penn.
Vice President.....	Francis J. O'Brien, Albany, New York
President-Elect.....	Harold G. Hewitt, Storrs, Connecticut
Chairman.....	Louis C. Zopf, Iowa City, Iowa
Secretary-Treasurer.....	Richard A. Deno, Ann Arbor, Michigan

### EXECUTIVE COMMITTEE\*

Louis C. Zopf, 1956, Chairman.....	Iowa City, Iowa
Roy A. Bowers, 1956.....	Newark, New Jersey
John E. Christian, 1956.....	West Lafayette, Indiana
Charles W. Bliven, 1957.....	Washington, D. C.
Jack E. Orr, 1957.....	Missoula, Montana
Rufus A. Lyman, Editor.....	Lincoln, Nebraska
Joseph B. Burt, Past-President.....	Lincoln, Nebraska
Linwood F. Tice, President.....	Philadelphia, Penn.
Harold G. Hewitt, President-Elect.....	Storrs, Connecticut
Richard A. Deno, Secretary-Treasurer.....	Ann Arbor, Michigan

### HONORARY MEMBERS

Zada M. Cooper.....	Villisca, Iowa
Rufus A. Lyman.....	Lincoln, Nebraska

### STANDING COMMITTEES

#### 1. Committee on Constitution and By-Laws

Leslie M. Ohmart, 1956, Chairman: Jack E. Orr, 1957, E. L. Hammond, 1958.

#### 2. Committee on Curriculum

Lloyd M. Parks, 1957, Chairman: Richard Thoms, 1956, Linwood F. Tice, 1956, Alfred N. Martin, Jr., 1957, Paul C. Olsen, 1957, William E. Hassan, Jr., 1958, Varro E. Tyler, Jr., 1958.

#### 3. Committee on Educational and Membership Standards

Chauncey I. Cooper, 1957, Chairman: Haakon Bang, 1956, David W. O'Day, 1956, Lyman D. Fonda, 1957, Tom D. Rowe, 1958, Glen J. Sperandio, 1958.

#### 4. Committee on Relationships of Boards and Colleges

Francis J. O'Brien, 1957, Chairman.

\*Specification of a year after the name of a member of the Executive Committee, a member of a standing committee, or a representative, delegate or director indicates the year in which the term of office or appointment terminates, ordinarily at the time of the Annual Meeting.

Other members of this Committee are the Secretaries of the eight Districts of Boards and Colleges listed with other District Officials under Districts of Boards and Colleges. See last page.

**5. Council on Conference of Teachers**

Herman O. Thompson, 1956, (Pharmacy), Chairman: Haakon Bang, 1956, (Pharmacy Administration), Vice Chairman; Edward P. Claus, 1957, Secretary-Treasurer; G. F. Reddish, 1956, (Biological Sciences); Paul J. Jannke, 1956 (Chemistry); Ewart A. Swinyard, 1956, (Graduate Instruction); Martin Barr, 1956 (AAPC).

**6. Joint Committee on Pharmacy College Libraries**

George E. Osborne, 1957 (AAPC), Chairman: Clara Robeson, 1956 (MLA); Mildred P. Clark, 1956, (SLA); James R. Weeks, 1956, (AAPC); Elizabeth W. Johnson, 1957, (MLA); Irene Strieby, 1957, (SLA).

**CONTINUING COMMITTEES**

**1. Committee on Audiovisual Education**

Heber W. Youngken, Jr., Chairman: William S. Apple, Esther Jane Wood Hall, Nicholas W. Fenney, Ewart A. Swinyard, Ralph F. Voigt.

**2. Committee on Civil Defense Education**

Noel E. Foss, Chairman: Robert P. Fischelis, William W. Stiles.

**3. Committee on Predictive and Achievement Tests**

Joseph B. Spowls, Chairman: Edward A. Brecht, Willis R. Brewer, Karl L. Kaufman, James A. Kearns, John F. McCloskey.

**4. Committee on Problems and Plans**

Rufus A. Lyman, Chairman: Kenneth E. Avis, Frank W. Bope, Edward S. Brady, V. Jean Brown, Raymond N. Castle, Roy C. Darlington, Dwight L. Deardorff, James M. Dille, Charles Boyd Granberg, Takeru Higuchi, Raymond E. Hopponen, Paul J. Jannke, Theodore O. King, Joseph Paul LaRocca, J. Leon Lichtin, Alfred N. Martin, Jr., Frank L. Mercer, Robert H. Miller, Milton L. Neuroth, Maynard W. Quimby, Claude M. Reed, Morton Joseph Rodman, Taito Soine, Robert C. Stokes, Raymond W. VanderWyk, Walter R. Williams, John E. Wintter, Joseph A. Zapotocky, Arthur G. Zupko.

**5. Committee on Recruitment Aids**

Richard A. Deno, Chairman: Donald C. Brodie, Charles D. Doerr, Robert W. Sager, Linwood F. Tice, Louis C. Zopf.

**6. Committee on Status of Pharmacists in the Government Service**

Robert L. Van Horne, Chairman: Loyd E. Harris, Pierre F. Smith.

**SPECIAL COMMITTEES**

**1. Committee on Affiliation of Canadian Colleges**

Daniel H. Murray, Chairman: Richard A. Deno, Curtis H. Waldon.

**2. Committee on Continuation Studies**

Roy A. Bowers, Chairman: William S. Apple, Charles S. Haupt.

**3. Committee on Future Enrollment Problems**

George L. Webster, Chairman: L. David Hiner, Stephen Wilson.

**4. Committee on Public Relations in Pharmaceutical Education**



William L. Blockstein, (AACP) Chairman: Ralph W. Clark, (AACP); John P. DeCamp, (ACPRA); William G. Wilcox, (ACPRA).

**5. Committee to Study Graduate Education in Pharmacy**

John E. Christian, Chairman: Melvin W. Green, John W. Nelson.

**REPRESENTATIVES, DELEGATES AND DIRECTORS**

**Representative to the American Association for the Advancement of Science**

Arthur J. McBay, January 1, 1958.

**Delegates to the American Council on Education**

Joseph B. Sprowls, Voting Delegate, 1957; Karl L. Kaufman, First Alternate, 1960; Charles W. Bliven, Second Alternate, 1961; Richard A. Deno, Voting Delegate, 1958; Hugh C. Muldoon, First Alternate, 1956; Francis J. O'Brien, Second Alternate, 1959.

**Representatives to the American Council on Pharmaceutical Education**

B. V. Christensen, 1956; Hugo H. Schaefer, 1958; Tom D. Rowe, 1960.

**Directors of the American Foundation for Pharmaceutical Education**

(Representing the AACP but elected by the Foundation)

Hugo H. Schaefer, 1956; George L. Webster, 1956; Linwood F. Tice, 1959; Richard A. Deno, ex officio; Louis C. Zopf, ex officio.

**Delegates to the House of Delegates of the American Pharmaceutical Association**

(To be named by Dean Tice or Dean Zopf).

**Representative to the National Wholesale Druggists' Association**

J. Lester Hayman

**Representatives to the National Drug Trade Conference**

Roy A. Bowers, 1956; Hugo H. Schaefer, 1957; Linwood F. Tice, 1958.

**SECTIONS OF TEACHERS**

Officers and Representatives of the sections in each case are listed in the following order: Chairman, Vice-Chairman, Secretary-Treasurer, Representative.

**Biological Sciences**

Howard L. Reed, Frank L. Mercer, Robert L. Van Horn, C. F. Reddish.

**Chemistry**

R. O. Bachmann, Jack E. Orr, Lee F. Worrell, Paul J. Jannke.

**Pharmacy**

E. C. Leuallen, Glen G. Sperandio, Byrl E. Benton, Herman O. Thompson.

**Pharmacy Administration**

Ralph J. Mill, Paul A. Pumpian, Esther Jane Wood Hall, Haakon Bang.

**Graduate Instruction**

Melvin W. Green, Takeru Higuchi, Lloyd M. Parks, Ewart A. Swinyard.

## DISTRICTS OF BOARDS AND COLLEGES

Officers of Districts are listed in each case in the following order:  
Chairman for the Boards, Chairman for the Colleges, Secretary.

**District No. 1** (Me., N. H., Vt., Mass, R. I., Conn.)

Clarence H. Hounsell, Robert I. Ellin, Maynard W. Quimby.

**District No. 2** (N. Y., N. J., Del., Pa., Md., D. C., Va. and W. Va.)

H. C. Kinner, Noel Foss, Francis J. O'Brien.

**District No. 3** (Tenn., N. C., S. C., Ga., Fla., Ala., Miss., Puerto Rico)

H. C. McAllister, E. A. Brecht, Kenneth L. Waters.

**District No. 4** (Ill., Ind., Ky., Mich., Ohio, Wis.)

Chester Kaliski, Charles Larwood, Edward J. Rowe.

**District No. 5** (Ia., Minn., Nebr., S. Dak., N. Dak.)

Harold Tisher, Guilford C. Cross, C. B. Granberg.

**District No. 6** (Ark., Kan., La., Mo., Okla., Texas)

Howell R. Jordan, Charles O. Wilson, R. O. Bachmann.

**District No. 7** (Ida., Mont., Ore., Wash, Wyo., Alaska)

J. K. Kopet, Herman Forslund, Wait Rising.

**District No. 8** (Ariz., Calif., Nev., N. Mex., Utah)

C. M. Nielson, L. David Hiner, Ewart A. Swinyard.

## ROSTER OF DELEGATES AND OTHER REPRESENTATIVES OF MEMBER COLLEGES

### FIFTY-SIXTH ANNUAL MEETING, MIAMI BEACH, FLORIDA

May 1-3, 1955

**Alabama Polytechnic Institute**

L. S. Blake

**Howard College, Birmingham**

W. R. Byrum

**University of Arizona**

A. L. Picchioni

**University of Arkansas**

R. O. Bachmann, W. Heller,  
S. G. Mittelstaedt

**University of California**

T. C. Daniels, R. Pratt,  
S. S. Riegelman

**University of Southern California**

A. G. Hall, G. Hamor,  
O. Miller

**University of Colorado**

C. F. Poe

**University of Connecticut**

N. W. Fenney, H. G. Hewitt,  
P. J. Jannke, A. E. Schwarting,  
D. M. Skauen

**George Washington University**

C. W. Bliven

**Howard University**

C. I. Cooper

**Florida Agricultural and Mechanical  
University**

J. H. Brown, M. T. Waters

**University of Florida**

H. M. Beal, C. H. Becker,  
R. J. Dauphinais, P. A. Foote,  
L. E. Fox, L. G. Gramling,  
C. H. Haupt, W. J. Husa,  
C. H. Johnson, W. M. Lauter,  
E. Voss

**Southern College of Pharmacy**

M. A. Chambers, W. C. Liu

**University of Georgia**

J. P. LaRocco, K. L. Waters,  
R. C. Wilson

**Idaho State College**

I. W. Rowland

**University of Illinois**

J. S. Bogando, D. L. Deardorff,  
D. Doerr, R. F. Voigt,  
G. L. Webster

**Butler University**

A. V. R. Beck, K. L. Kaufman,  
B. R. Mull, E. J. Rowe,  
E. E. Swanson

**Purdue University**

J. E. Christian, H. G. DeKay,  
G. L. Jenkins, T. S. Miya,  
G. J. Sperandio

**Drake University**

B. E. Benton, C. B. Granberg

**State University of Iowa**

J. W. Jones, L. C. Zopf

**University of Kansas**

J. H. Burckhalter, D. G. Wenzel

**University of Kentucky**

A. C. Glasser

**Loyola University**

E. J. Ireland, J. F. McCloskey,  
J. Siragusa

**Xavier University**

J. M. Crampton, L. F. Ferring

**University of Maryland**

B. F. Allen, N. E. Foss,  
G. P. Hager, P. A. Pumpian,  
W. A. Purdum

**Massachusetts College of Pharmacy**

H. J. Jenkins, A. J. McBay,  
H. C. Newton, L. M. Ohmart,  
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# **The American Journal of Pharmaceutical Education**

**RUFUS A. LYMAN**

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LINWOOD F. TICE  
*President, 1955-56*



## **Linwood F. Tice**

Linwood F. Tice, like most Americans, knows but little about his ancestors other than that they have been in the United States for many generations. To most of us that is sufficient knowledge to make us content. This is especially true of us in our younger years but as we grow older there creeps into our consciousness a desire to know from whence we came and what kind of people our ancestors were. Finally, after we have exhausted all our living and library sources of information, we end up by visiting grass overgrown cemeteries and reading the names and legends on disintegrating stones. And well we may, for there is a lot of history packed in those legends. However, it seems to make but slight difference whence our ancestors came or the type of blood that coursed through their veins. They all had a common characteristic, a common ambition, namely, to be free in a land where they and their children could have opportunities not possible in older civilizations. To attain those ends they were willing to face the wilderness in a strange land and to endure the hardships of pioneer life.

Such was the heritage that the parents of Linwood F. Tice bestowed upon their son. The father was of Dutch, and the mother of English descent. The latter bore the honorable name of Waddington. No stock could be more substantial.

Linwood F. Tice was born on February 17, 1909 in Salem, New Jersey. Salem is a small town (population 7,000) located in a rural area about forty-five miles from Philadelphia. Two years of his boyhood were spent on his grandfather's farm doing regular farm work—milking cows, feeding pigs, hunting the hen's stolen nest, and all other kinds of work which are a part of farm life. At the age of twelve he began working in a small, typical American drugstore, in his home town, where window glass, paint, insecticides for farm use, veterinary remedies, and almost every thing imaginable, were sold. He worked for the same old-time pharmacist all through his college days. That was, in itself, a worthwhile

contribution to his education. He still lives in Salem and drives to the College each day. This he does since he is still a country boy at heart and dislikes living in a large city.

Dr. Tice also married a girl from Salem. They have two sons of whom they may well be proud. One, Gregory, graduated from Haverford College as a physics major and is now a second year graduate student in physics at Yale University. He is working as a graduate assistant and is majoring in Theoretical Physics. Their second son, David, has just finished his second year as an engineering major at Swathmore College. The fundamental belief of these parents in liberal education is exemplified by the fact that both sons, although science majors, were sent to colleges of liberal arts.

President Tice's educational career is impressive. He holds the degrees Ph.G. (1929), B.Sc. in Pharmacy (1933), M.Sc. in Chemistry (1936), from the Philadelphia College of Pharmacy and Science; D.Sc. (1954), St. Louis College of Pharmacy and Allied Sciences. He has been a Registered Pharmacist since 1930 and has held research fellowships and many positions in various scientific and professional organizations.

The following positions which he holds indicate the breadth of his present activities: Assistant Dean and Director of the Department of Pharmacy, Philadelphia College of Pharmacy and Science; Editor, *American Journal of Pharmacy*; Technical Editor, *Pharmacy International*; Technical Editor, *El Farmaceutico*; Chairman, Committee on Student Branches, American Pharmaceutical Association; Member, Committee of Revision, United States Pharmacopeia, 1940-1950, 1950-1960; Member, Board of Directors, American Foundation for Pharmaceutical Education; Consultant, Gelatin Research Society of America, Inc.; Consultant, Professional Examination Service, American Public Health Association; Professor of Organic Chemistry, Wagner Free Institute of Science; and President, 1955-1956, of the American Association of Colleges of Pharmacy.

His accomplishments are to be found in the following compendia which record the attainments of scholarly men: *American Men of Science*, *Who's Who in American Education*, *Leaders in Education*, and *Who's Who in the East*.

President Tice's church connections are with the Methodists. Like all of us, he likes to think of himself, politically, as an independent, but admits he finds himself voting Republican much oftener than Democratic, which is primary basic evidence of good judgment and sound statesmanship.

Like all men, that have learned to live intelligently, he has his hobbies which give him means for relaxation and a stimulus for outdoor life. In his younger years, these included tennis and golf. In the latter days he has turned to hunting (especially ducks), fishing, and boating. He has several boats and spends much time on the water. In spite of these various recreations, any one of which would be sufficient for the average man, President Tice declares his major love is fine music. He enjoys hearing a symphony, possibly more than any other single pleasure.

Such are the qualifications the present President of the American Association of Colleges of Pharmacy possesses for leadership in pharmaceutical education in these changing times when constructive leadership is so essential. The remarkable fact is that he has attained this position of highest leadership in the pharmaceutical educational world as a "home town boy." He anchored himself in the town of his birth and from that anchorage has attained national leadership and international recognition. He did not have to leave the home town to make good. Instead he brought culture and distinction to that town. May there be more of his kind. His presence exudes both culture and determination. Pharmaceutical education will not mark time under the leadership of Linwood F. Tice.

RUFUS A. LYMAN

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## **Report of the President**

JOSEPH B. BURT

This, the 56th Annual Meeting of the American Association of Colleges of Pharmacy, finds us assembled for the third time in the Everglade State; the two earlier meetings were those held at Miami in 1931 and at Jacksonville in 1949. It is

a privilege and an inspiration to meet in such beautiful surroundings.

The responsibility of the President, in connection with his report, is to acquaint you with those actions taken by the Association and those projects initiated since our last meeting. It should be understood that most of the progress made by the Association is through the activities of our committees. I should like at the outset to express my thanks and appreciation to the members of the various committees who, despite the shortened Association year resulting from the change in the date of our meeting from August to May, have been active and achieved many worthwhile objectives as their reports will show. This year all committees, standing, continuing, and special, and our representatives and delegates, have been appointed in accordance with the recommendations of the Committee on Committees, with respect to the composition of each committee, length of term, and where recommended, overlapping terms of service. The Report of the Committee on Committees, which outlines the duties and functions of each of our committees has been especially valuable this year in view of the shorter period of committee activity in permitting the initiation of committee work immediately after appointment. Full advantage of the plan for overlapping terms of service on the standing committees and as representatives and delegates will be attained next year as hold-over members continue their service in these capacities.

I shall, in so far as possible, avoid reference to the activities of individual committees, preferring that each committee report on its own activities directly to you. There is under way, however, a long-range program of quality recruitment of pharmacy students, developed in a general way by our Executive Committee, but planned in great detail by its Subcommittee on Recruitment Aids which is of great significance with respect to improving the quality of future students of pharmacy and destined, I believe, to become one of the Association's greatest contributions to pharmaceutical education. I have requested the privilege of discussing this with you and my comments on this subject will replace a formal report from the Subcommittee.

In pharmacy we are not attracting sufficient numbers of entering students from the upper quarter or even the upper half of the high school graduating classes. The number of applicants for admission to pharmacy is even insufficient for adequate screening. A national ratio of applicants to matriculants of approximately 1.5 to 1.0 has prevailed since the years of peak enrollment (the late forties). For some of our member colleges the low national ratio has meant that they were dangerously near the "no-selection point."

On the other hand, large numbers of well-qualified high school graduates do not attend college, either through lack of interest or because of economic reasons. The recently-published Report of the Commission on Human Resources and Advanced Training states: "Fewer than half of the best 25 per cent of all high school graduates now graduate from college." A second study, carried out in upper New York State and as yet unpublished, involves 21,000 high school seniors. Three groups were recognized among them: (1) "Ph.D. Material," those considered capable of advanced training to the Doctor of Philosophy level; (2) "College Material," additional students judged capable of profitably pursuing collegiate study and (3) "Questionable," those whose native abilities leads to questions concerning their capability for college work.

One out of each five of the group considered as "Ph.D. Material" does not plan advanced study and two out of each five of the "College Material" do not plan advanced study, but at least two out of each five of the "Questionable" *do* plan to apply for admission to college. We do not intend to imply that every member of the last group should be excluded automatically from pharmacy for some of them may have attributes that will carry them through successfully. What we would like to suggest is that pharmacy can be upgraded only if we can obtain a larger proportion of students than we are now receiving from the better qualified high school graduates. The same general observation applies to the selection of our graduate students in pharmacy.

For several years the officers of your Association have

recognized the need for dignified aids to quality recruitment of students for pharmacy. Almost eighteen months ago, the Association published the career brochure "Shall I Study Pharmacy?". This has been well received by virtually all segments of the profession. Over 85,000 copies have been distributed by our member colleges, industry and associations. Guidance counsellors and teachers have accepted the brochure with enthusiasm and already some evidence of its effectiveness has been noted by our member colleges. Early in March of this year, a second edition of "Shall I Study Pharmacy?," with minor revisions in text and some changes in illustrations was released and is available at the same prices as were charged for the first edition.

The second edition of the brochure was prepared under the supervision of the Executive Committee's Subcommittee on Recruitment Aids, a new group replacing the former Committee on Brochure appointed for the broader purpose of developing a long-range plan for the production of suitable recruitment aids to attract well qualified students to the study of pharmacy. The membership of the Subcommittee is as follows: Dr. Donald C. Brodie, Mr. Charles D. Doerr, Dr. Robert W. Sager, Dr. Linwood F. Tice, Dr. Louis C. Zopf, and Dr. Richard A. Deno, Chairman. The Subcommittee has retained the services of Dean Melvin Broadshaug, Boston University, School of Public Relations and Communications, as technical advisor; he has served for several years as Vice President of Encyclopedia Britannica Films, in charge of production of audiovisual aids. By recommendation of the Executive Committee, the incoming President has been asked to appoint the members of the Subcommittee as the Committee on Recruitment Aids, a new continuing committee of the Association. If this is done, the Committee will, in the future, report directly to the Association, rather than to the Executive Committee.

Shortly after the appearance of the first edition of the brochure, "Shall I Study Pharmacy?" an informal meeting was held in New York City at the suggestion of Dr. W. Paul Briggs, Secretary and Executive Director of the American



Foundation for Pharmaceutical Education, to discuss the extension of a program designed to provide dignified recruitment aids. Representing the Foundation were President Robert L. Swain, Mr. Charles D. Doerr, Secretary W. Paul Briggs and Mr. Francis Brown. Representing our Association were Chairman Louis C. Zopf, Secretary Richard A. Deno and Dr. George L. Webster. As a result of this meeting, it was suggested that the Executive Committee of the AACP develop a long-range plan whereby the necessary recruitment aids could be made available. As an indirect result of this meeting a speech by Secretary Briggs, entitled "Opportunities in Pharmacy," was reprinted by McKesson & Robbins, Incorporated, and made available for general distribution. This contained a list of all accredited colleges of pharmacy and suggested that a copy of the brochure "Shall I Study Pharmacy?" might be obtained by requesting it from any college on the list.

The general plans developed by the Subcommittee on Recruitment Aids were approved by the Executive Committee of the AACP at their August meeting in Boston; the more detailed program was approved in January of this year at the interim meeting of the Executive Committee. The proposals made by the Subcommittee on Recruitment Aids, first to the Executive Committee of the American Foundation for Pharmaceutical Education, and later to its Board of Directors, involved a total request of \$100,000, to cover a series of projects to be completed within a three-year period. Action taken on this request by the Board of Directors of the Foundation was reported in the official minutes of their meeting held March 3, 1955, which read as follows:

"The Board of Directors approves the program at a total cost of not more than \$100,000, such costs to be distributed over a period of two to three years; and, for this purpose and within the total cost, the Board approves an appropriation of \$20,000 to the current (1954-55) budget, and \$35,000 as an addition to the 1955-56 budget as submitted by the Finance Committee."

The entire program includes eight projects, five of which are designed for the recruitment of undergraduate students. These are as follows:

1. Distribution of "Shall I Study Pharmacy?" in the packet service of the National Science Teachers Association, to some 22,000 high school teachers in science. (Twelve non-pharmacy evaluators have endorsed the brochure for such distribution). Estimated cost, \$6,000.

2. Color-sound motion-picture, 15-20 minutes, on careers in pharmacy, with primary emphasis on retail pharmacy and including hospital practice, manufacturing, wholesaling, administrative work, and additional fields. Estimated cost, \$25,000.

3. Filmstrip, 40-50 frames, on same subject as those covered by 2. Estimated cost, \$3,000.

4. Color-sound motion picture, 15-20 minutes, on pharmaceutical education, starting with high school and ending with the Bachelor of Science degree. Estimated cost, \$25,000.

5. Filmstrip, 40-50 frames, on the same subjects covered by 4. Estimated cost \$3,000.

Three additional projects, intended for the recruitment of graduate students, are included in the program. These are the following:

6. Brochure on the opportunities available to students completing the Master of Science and the Doctor of Philosophy programs, and on the nature of the educational requirements for these degrees in pharmaceutical fields. Estimated cost, \$10,000.

7. Color-sound movie, 15-20 minutes, to accompany item 6. Estimated cost, \$25,000.

8. Filmstrip, 40-50 frames, on same subjects as those covered by items 6 and 7. Estimated cost \$3,000.

Total estimated cost \$100,000.

Estimated Cost of items 2-5

(for undergraduate recruitment) \$56,000.

The first installment of \$20,000 has already been received by the Secretary-Treasurer of our Association. The Subcommittee on Recruitment Aids, in a meeting held at New York City April 15 and 16, selected a producer, Lloyd Young, for the audiovisual aids designed to be used in the recruitment of undergraduate students. During the coming summer and early fall, details of the script will be completed and production of films and filmstrips will be carried out under the supervision of the Subcommittee. The audiovisual aids intended for this part of the program should be available next year.

Mention should be made of the fact that item 1, the distribution of the brochure "Shall I Study Pharmacy?" in the packet service of the National Science Teachers Association does not, in any sense, relieve member colleges, associations and industry of the responsibility of continuing to supply the brochure to high school students of the regions served. The distribution provided for in this service is limited to high school teachers in science.

The member colleges, state associations and retail pharmacy have co-operated splendidly in the distribution of the brochure. Despite this fact, it has been distributed to guidance personnel in only about half of the states. In many of the states where such distribution has been made, this has been made possible through financial assistance provided by retail pharmacists and by the state pharmaceutical associations. Deans and directors of member colleges in those states where such distribution has not occurred are urged to take the initiative in this matter. There is also considerable evidence that the brochure would be filed and used for reference if made available to all libraries. In so far as is known, systematic distribution to all libraries on a state-wide basis has been carried out in only three states. It is recommended that individual member colleges make an effort to meet this need.

The distribution of the audiovisual aids to be produced is now receiving the study of the Subcommittee. The funds provided by the Foundation, while believed to be adequate to cover production costs, will not be sufficient to cover the cost of prints. Present plans call for distribution by sale, by loan, and by rental through established commercial channels. Efforts will be made to provide prints initially at cost to member colleges.

As you know, the Executive Committee has had under consideration proposals intended either to increase the responsibility and dignity of the office of Vice President or to abolish the office. At the Interim Meeting, the Committee had the opportunity of choosing between proposed amendments to the Constitution which would eliminate the office of Vice President, providing for the assumption of the duties

of this office by the President Elect and amendments which would abolish the office of President Elect and assign the duties of that officer to the Vice President. The Executive Committee favored the latter alternative and the Committee on Constitution and By-Laws has responded with proposed amendments to Articles VII and VIII of the Constitution which, if adopted, will bring this about. It should be noted, however, that although the report of the Committee on Constitution and By-Laws will be received prior to the Election of Officers, according to the Order of Business shown in Article XVIII of our By-Laws, action on the adoption or rejection of the proposed amendments will not come until the Executive Session, which follows the Election of Officers. Regardless of any action which may be taken subsequently, the presiding officer shall rule that the Nominating Committee shall report nominations with the minimum number of candidates prescribed for the positions authorized under the present Articles VII and VIII of the Constitution. These are as follows: President Elect, Vice President, Secretary-Treasurer, Chairman of the Executive Committee and two vacancies on the Executive Committee. In the event that, subsequent to the election of officers for the Association year 1955-56, Articles VII and VIII of the Constitution are amended so as to abolish the office of President Elect, it shall be ruled, in the absence of objection, that the newly adopted amendments do not become effective until the election of officers for the Association year 1956-57.

One of the questions which has arisen since the adoption of the extended program in pharmaceutical education at the Boston meeting, is why the American Association of Colleges of Pharmacy has not selected a specific curriculum pattern or patterns to recommend to its member colleges? My answer to this has been that since the proposal for extending the program was purposely framed in such a way as to provide complete freedom of choice among the 1-4, the 2-3, and the integrated programs, it might be regarded as evidence of bad faith if the Association now attempted to limit the choice of the curriculum pattern. This matter has been discussed by

the Executive Committee. Your attention is directed to the following statement, which appears as Item 23 in the Minutes of the Interim Meeting of the Executive Committee, January 19-21, 1955.

**"23. Pattern of the Five-year Program.** Attention was directed to statements in the pharmaceutical press which have implied that in approving a five-year program last August as a requirement for membership in the Association, specification was made that the program must consist of collegiate pre-pharmacy courses to be completed prior to admission to a college of pharmacy.

"At the present time, nine member colleges offer extended programs only. Four of these are 1-4 programs, four are 2-3 programs and one is 2-4 program. In every case, therefore, pre-pharmacy education at the collegiate level is undertaken prior to admission to the college of pharmacy. Without doubt, most, if not all, of the colleges by 1960 or earlier will have a pattern following that of one of these nine institutions now on extended programs.

"This situation notwithstanding, there is nothing in the action taken at Boston which requires member colleges to require pre-pharmacy instruction prior to admission to the college of pharmacy. The requirement is simply: 'On and after April 1, 1965, each member college shall require of each candidate for a degree in Pharmacy, completion of not less than five full academic years of training, including both pre-pharmacy instruction and a minimum of three years of professional instruction.'

"In this connection reference is made to Chapter 12 of 'The Pharmaceutica Curriculum', by Blauch and Webster. All curricula outlined in this chapter in detail include pre-pharmacy collegiate instruction prior to the study of pharmaceutical subjects. Nevertheless, there is discussion in the chapter of a so-called 'integrated curriculum' in which education in the liberal arts and sciences is combined throughout five or six years with education in professional subjects.

"At the present time neither the Executive Committee nor the Association has officially endorsed any of the patterns possible under the five-year program adopted last August. Implied endorsement of any specific pattern or patterns is probably unfortunate at this time since the whole matter is still open for discussion."

Since the appearance of these minutes some objection has been raised by a dean of a member college to the so-called integrated program on the grounds that the value of the pre-

pharmacy year or years as a screening process would be lost and the integrated program would result in the loss of status as a professional school, such as that now held by dentistry, law and medicine.

Although I have heard heated arguments on the superiority of the 2-3 over the 1-4 programs, and *vice versa*, I have heard no one advocate the integrated program. It is possible that this may not become an issue. With the thought that this whole matter merits further consideration on the part of our membership, a panel discussion has been scheduled for our third regular session to be held Tuesday forenoon, May 3, on the topic: "Planning the Extended Program." Speakers will include Dean Jack E. Orr, Dean Hugo H. Schaeffer, Professor Warren E. Weaver and Dean John F. McCloskey. You are invited to contribute your ideas to the discussion of what position, if any, our Association should take in regard to the curriculum pattern to be selected for the extended program.

Two problems which have been discussed repeatedly by the Executive Committee without leading in either case to specific action are the questions of establishing as functions of one of the officers, possibly the Secretary-Treasurer, (1) the maintenance of an up-to-date personnel roster showing the names, positions, ranks, and possibly the academic qualifications for at least all full-time faculty members of member colleges and (2) the operation of a placement bureau where such service is requested by potential employers or employees. It is possible that arrangements could be made with the American Council on Pharmaceutical Education to provide current information derived from annual reports received from accredited colleges for the personnel roster, thus avoiding the need for a duplication of reports. Some time ago, our former Committee on Personnel Problems developed a mimeographed roster of personnel listing the names of staff members according to faculty membership which was quite useful to many officers and committee chairmen of the Association.

The question of whether or not the Association should



undertake to serve as a clearing house for employment is one that is debatable. If such a responsibility were to be added to the functions of the Secretary-Treasurer, it is my opinion that his activity should be limited to serving as a source of information concerning the availability of positions and of potential candidates, without expressing judgment or opinions concerning the qualifications of individual candidates or recommending any person or institution. This would mean that any member of a faculty could receive upon request, a complete file of all vacancies in a specific field which had been filed with the Secretary-Treasurer; in like manner, any dean or director of a school could be supplied, upon request, with the names and addresses of all persons who had filed their names and indicated their availability for employment in a special field of instruction.

Since the members of the Executive Committee and the officers of the Association would like your guidance in both of these matters, I am appending to this report recommendations which will give you the opportunity to express your wishes in these matters. I am not necessarily recommending that either be adopted, but I believe your vote on the proposed recommendations will serve to dispose of these recurring problems one way or another.

Continuation of the joint meetings of the American Council on Pharmaceutical Education and the Executive Committee of the American Association of Colleges gives increased evidence of the value of these meetings. Exchange of information and discussion of mutual problems has led to closer co-operation and a better understanding of the responsibilities and functions of both organizations. It is my hope that it will be possible to continue these meetings, even though this may require a change in the schedule to an earlier date for the interim meetings of the Executive Committee.

During the course of the year it frequently becomes necessary for the President to call upon members of the Association to represent it at various special conferences, ceremonies and dedicatory programs. Special recognition should be given to the following for special service rendered.



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President Elect Linwood F. Tice as principal speaker, Cornerstone Laying Ceremonies, Howard University, Washington, D.C., October 22, 1954.

Dr. A. B. Lemon, Dean Emeritus, School of Pharmacy, University of Buffalo Installation of Clifford Cook Furnas as Chancellor, University of Buffalo, January 7, 1955.

President Elect Linwood F. Tice, attendance February 8, 1955, Washington, D.C., at a special conference in an advisory capacity to consider the "Public Health Role of the Pharmacist Officer in the Commissioned Reserve of the U.S. Public Health Service for Periods of Grave National Emergencies."

Dean Noel E. Foss, who met on February 23, 1955, at Washington, D.C., to represent the Association on a special committee to meet with representatives of the Food and Drug Administration to discuss administrative policies, rules and regulations of the Food and Drug Administration.

Your President attended the annual convention of National Association of Retail Druggists, October 11-14, 1954, at Houston, Texas. He also served as the principal speaker at the program held November 28, 1954, celebrating the merger of the Cincinnati College of Pharmacy with the University of Cincinnati and the dedication of the new building for the College of Pharmacy.

The Association should express its thanks to the American Foundation for Pharmaceutical Education for its continued support of the American Journal of Pharmaceutical Education, and of the teachers' seminars; specifically, we should express our gratitude and commendation to the Board of Directors for their vision, foresight and confidence in our Association in supporting the long-range program for recruitment of pharmacy students by subsidizing the program to the extent of \$100,000.

May I, in closing, express my sincere thanks to all officers, chairmen and committee members for your co-operation and assistance. I especially wish to commend the Chairman of the Executive Committee and the Secretary-Treasurer for the efficient manner in which they have carried their responsibilities, and for their co-operation with me during my term of office. I also wish to thank every member of the Executive Committee for their fine service to the Association and for their assistance and co-operation.

It has been a rare privilege and a great honor to have been your president; I wish to thank you for the opportunity of serving in this capacity.

**RECOMMENDATIONS FROM THE PRESIDENT'S ADDRESS**

1. It is recommended that the Committee on Resolutions prepare and place before the Association a resolution designed to determine whether or not the Association wishes to authorize its Secretary-Treasurer to prepare and distribute annually or biennially a roster of personnel, listing all full-time staff members of member colleges.

2. It is recommended that the Committee on Resolutions prepare and place before the Association a resolution designed to determine whether or not the Association wishes to authorize its Secretary-Treasurer to make available to deans, directors, and faculty members of member colleges information concerning existing vacancies in teaching positions, and the names of persons available to fill such vacancies which may have been reported to him, with the understanding that his activities be limited to the furnishing of lists of names and vacancies, and do not include recommendations of any person or institution.

3. It is recommended that the Committee on Resolutions prepare and recommend the adoption of a resolution expressing the thanks and appreciation of the Association to the members of the Board of Directors of the American Foundation for Pharmaceutical Education for their continuing support of: the American Journal of Pharmaceutical Education; the American Council on Pharmaceutical Education; the teachers' seminars; undergraduate scholarships and graduate fellowships; and especially for its vision and foresight in supporting the long-range program of quality recruitment of pharmacy students as developed by our Subcommittee on Recruitment Aids.

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## **Address of the Incoming President**

**LINWOOD F. TICE**

It is the duty of the President-Elect in presenting his address before this Association to avoid, as much as possible, all data and subjects included in the address of the President. It would also seem most appropriate for the President-Elect to discuss those matters which are likely to require the attention of the members during the next Association year

when it shall be his responsibility to serve as President.

President Burt has already reported on many of the important affairs of this Association conducted under his excellent guidance. The Association is fortunate in having had a man of his stature so actively engaged in its affairs—not only during his tenure as President, but during his long period of service as Chairman of the Executive Committee.

A number of matters would seem to require thought, as well as some future action, by this Association. Some of these are of only minor significance and almost not debatable; others are of considerable importance; and a few of these may be placed in the category of those which are highly controversial. Since your President-Elect has never been known as one skilled in tact or diplomacy, nor has he much respect for expediency—he shall attempt to present the several matters strictly as he sees them. In no event should it be considered that his opinions, as stated, necessarily reflect those of the Executive Committee. Should the Association wish to lend stature to his opinions by giving them official endorsement, it will—of course—be appreciated, but—if not—the wishes of the majority will be accepted gracefully.

The problem of education in hospital pharmacy is a growing one. This Association has not been unmindful of this problem and has adopted certain resolutions in the past expressing our feelings on a number of aspects of the problem. While there are two types of training programs in hospital pharmacy (the so-called academic and non-academic internships), most responsible educators look with disfavor on that type of program which is composed only of practical experience. It is true, of course, that, as an Association, we cannot take any official action in denying hospitals the right to offer such training. We do, however, have an opportunity to influence greatly the nature and quality of hospital pharmacy training involving graduate study. If we do this and do it well, the end product of such training in hospital pharmacy will be so markedly superior that, by comparison alone, our point will be made. This matter has been discussed by the Executive Committee and it is their feeling that the Asso-

ciation should be alert to the challenge which it poses. It is, therefore, recommended that the Section of Teachers of Graduate Instruction of the Association give specific attention to the need of member colleges for guidance in setting up and improving programs of academic internship in hospital pharmacy.

In the past we have had, on a number of occasions, some of our Canadian colleagues attend our meetings as guests. Quite a few faculty members from Canadian colleges of pharmacy were present at both the Buffalo and the Boston meetings. The suggestion has been made that some type of membership in our Association be offered Canadian colleges of pharmacy. In doing so, it would—of course—be necessary to avoid in any way the weakening of the Canadian Conference of Pharmaceutical Faculties and our Association must not be placed in the position of creating the impression that we feel there is any inadequacy in this Canadian organization's service to its members. The Secretary of our Association was instructed by the Executive Committee to investigate this matter further. It is recommended that a special Committee be appointed to make a thorough study of this and to bring in some formal recommendation pertaining to it at our next annual meeting.

During the past year, there have been repeated efforts made in numerous states to introduce legislation or alter existing legislation in such a way as to permit the sale of many drugs in any type of retail store. In a number of instances, the result would be that products long considered properly sold only in retail drug stores could be bought by the public anywhere. The Executive Committee, in its Interim Meeting, discussed this problem in considerable detail and the following resolution, passed by the Executive Committee, was sent to the Secretaries of the APhA, the NABP, the NARD, each state pharmaceutical association, and each state board of pharmacy.

"The Executive Committee of the American Association of Colleges of Pharmacy is concerned about recent and current efforts to break down existing laws designed to safeguard the

public health, and about attempts to pass new legislation which would permit sale by persons not trained in pharmacy of any drug product advertised to the public. Such distribution without supervision by a pharmacist constitutes a potential hazard to the health and welfare of the public."

This is a matter which concerns every pharmacist and every pharmaceutical educator in the country, inasmuch as it is our duty to protect public health and welfare. Few can deny that the promiscuous sale of proprietary drugs in all types of stores will, in the final analysis, do great harm. While it may be true that many of these remedies are, at times, sold without too much supervision in the pharmacy, a person qualified to give guidance and advice is always present in the person of the registered pharmacist. While only a small percentage of customers may desire such information or guidance, it should be there when needed. There is also much to be said for the numerous instances when a pharmacist will dissuade a would-be purchaser from buying a drug which he knows to be not in the best interest of the purchaser—and this is done every day, all opinions to the contrary. It is recommended that the resolution adopted by the Executive Committee—either as it stands, or reframed by our Resolutions Committee—be adopted by the Association as a whole and that member colleges give their full support to all those agencies now engaged in an attempt to prevent the destruction of laws in the field of pharmacy designed to give the public the protection which they need.

As has been reported elsewhere, the next Teachers' Seminar, which will be devoted to the general area of Pharmacy, is to be held at Butler University in Indianapolis, August 7th to 12th. A short time ago, the opinion of the President-Elect was asked by Dr. Bert R. Mull of Eli Lilly and Company concerning what might be the attitude of pharmaceutical educators toward an Industrial Pharmacy Seminar offered by Eli Lilly and Company. The purpose of this Seminar, as outlined by Dr. Mull, would be to give teachers of pharmacy the opportunity during a one week period, from August 29th to September 2nd, to see in intimate detail the operation of every department of a large pharmaceutical manufacturing

company. It was described as not designed to promote the company, but to give teachers of pharmacy a much better appreciation of the complexities and problems involved in modern research, development, control, manufacturing, and distribution. While the President-Elect could not speak officially for the Association, it was his opinion, as stated, that such a Seminar would in no way conflict with our present Teachers' Seminar since our Teachers' Seminars are concerned primarily with improving our performance as teachers. The Industrial Seminar would not have this as its objective, but rather to give our teachers a better grasp of industrial pharmacy. Furthermore, it seemed quite apparent that the AACP could never, under its own auspices, arrange such an Industrial Seminar. As a result, Dr. Mull was advised that there seemed to be every likelihood that such a Seminar, if offered by Eli Lilly and Company, would receive widespread interest and support from our teachers. This would seem doubly assured in view of the fact that all expenses of travel to and from, and residence in, Indianapolis for one week would be borne by the Company for one teacher from each member college. The full details of this Seminar are soon to be announced by Eli Lilly and Company and it is hoped that the personal endorsement given this by your President-Elect will be followed by its widespread approval. It would seem that every teacher attending such a program would return to his campus with a much better understanding of the products which he presents to his classes and the problems which are attached to their development and production. This should surely contribute greatly to our effectiveness as teachers.

The Curriculum Committee, under the Chairmanship of Dr. Lloyd M. Parks, has given close attention to certain aspects of the problems posed by the expanded program in pharmaceutical education. While it is not the wish of the President-Elect to duplicate the suggestions and recommendations of this Committee, he cannot avoid reiterating a point which is so likely to be overlooked by our Deans and curriculum committees in our various schools. With the increased time which is available, there will be a great tempta-



tion to utilize this time by adding more professional work, more physics, chemistry, calculus, or other technical courses so dear to the hearts of most of our teachers. While these would all be fine additions to the curriculum, they do not solve the most pressing problem concerning our present needs and what can be accomplished in a space of five years. The things which require the most urgent attention are:

1. A better integration without increasing credit load; and
2. The addition of courses in the social sciences and the humanities which have no direct bearing on the professional training or competence of the pharmacist.

The expression "trained barbarians" has been caustically, but somewhat aptly, used in describing our present graduates. We must change this at all costs, if the pharmacist is to be that type of person in his community who can command respect and occupy that position of leadership which should be his. The great danger is that we, who in most cases have had a purely technical training ourselves, may overlook this point and fail to grasp its significance. Unfortunately, many of our own teachers, including the speaker, have not had the benefit of the training which is needed, and it is all too easy to add hours in one's own field of specialization rather than to accept the fact that some other field of which we know nothing is more important. Let us do the overall job in pharmaceutical education which is needed and not just blow up and expand our present curriculum in quantitative terms.

At the Boston Meeting, your President-Elect was somewhat confused and considerably disturbed by certain events which transpired in Executive Session. This concern was likewise shared by the Executive Committee and it led to Item 22 on the Minutes of the Interim Meeting of the Executive Committee held January 19th to 21st of this year. For the information of those present, the statement on this matter by the Executive Committee is repeated here:

"In view of the fact that some criticism has been directed against the American Association of Colleges of Pharmacy for action taken in admitting certain colleges to membership, the members of the Executive Committee of the Association wish to go on record with the following statement: It is the con-



sidered opinion of the members of the Executive Committee that no institution should be refused membership in our Association if it meets all of the 'Qualifications for Admission to, and Membership in' the Association as set forth in Article I of our By-Laws. On the other hand, the members of the Executive Committee wish to state clearly their position on the principle of separate but equal facilities for the education of negroes: This practice is not only unconstitutional by the decision of the United States Supreme Court but also a violation of human rights and the dignity of man."

It is recommended that the Association, as a whole, endorse this statement in order that we may not be put in the position of subscribing to human prejudices which are abhorrent to us.

At the meeting of one of our Districts, an incident took place which caused all of the officers of this Association, and the President-Elect in particular, considerable chagrin and righteous indignation. A member Dean of this Association who, in good faith, attended this, his District Meeting, was refused permission to attend the meeting. This refusal was based solely upon his color. The officers of this District were not directly responsible since the objection was made by the hotel where the meeting was held. Their indirect responsibility, however, seems inescapable. Such an event is an insult and an affront and it is the duty of this Association to protect its members against such incidents. Some of our members have suggested that, under such circumstances, the Dean in question should not have attempted to attend the meeting. Can any one who is worthy of the name, educator, maintain such a position, if he be honest? This, your President-Elect doubts. It is recommended that this Association direct all of its officers and those of Districts coming under its jurisdiction that all meetings of this Association or its Districts be held only at such places and under such circumstances that all members of this Association are free to attend, and that this directive be sent at once to all parties concerned.

In closing, the President-Elect wishes to commend the other officers and members of the Executive Committee with whom he has worked as a colleague over the past year. The

judgment and fairness of our President, he has known for many years since it was under Dean Burt that his first experience on the Executive Committee was gained. If the Nominating Committee and the Membership are agreeable, it is likely that both Chairman Zopf and Secretary Deno will continue in their service to the Association during the coming year. Your President-Elect does not wish to appear an electioneer, but he hopes desperately that, following the election, these men will continue to be on his team. With such support and with the kindly tolerance of the Association, his tenure as President next year may then not prove too impossible. Many a monarch and president has managed to get by solely through the support of his ministers and advisers. Such will be the case this next Association year.

#### **RECOMMENDATIONS FROM THE PRESIDENT-ELECT'S ADDRESS**

1. It is recommended that this Association ask the Section of Teachers of Graduate Instruction to give specific attention to the need of member colleges for guidance in setting up and improving programs of academic internship in hospital pharmacy.
2. It is recommended that a special committee be appointed to make a thorough study of the advisability of offering Canadian colleges of pharmacy some type of membership in our Association and that some formal recommendation from this committee be submitted at our next Annual Meeting.
3. It is recommended that the resolution adopted by the Executive Committee pertaining to efforts to break down existing laws designed to safeguard public health be adopted by the Association as a whole and that our member colleges be requested to give their full support to all those agencies now engaged in an attempt to prevent the destruction of laws in the field of pharmacy designed to give the public the protection which they need.
4. It is recommended that the statement adopted by the Executive Committee at its Interim Meeting, and listed as Item 22 in the Minutes, be revised as follows so that it shall become an official statement of the Association as a whole:  
In view of the fact that some criticism has been directed against the American Association of Colleges of Pharmacy for action taken in admitting certain colleges to membership, the members of the Association wish to go on record with the following statement: It is the considered

opinion of the Association that no institution should be refused membership in the Association if it meets all of the 'Qualifications for Admission to, and Membership in' the Association as set forth in Article I of the By-Laws. On the other hand, the Association wishes to state clearly its position on the principle of separate but equal facilities for the education of negroes: This practice is not only unconstitutional by the decision of the United States Supreme Court but also a violation of human rights and the dignity of man.

5. It is recommended that this Association direct all of its officers and those of Districts coming under its jurisdiction that all meetings of this Association or its Districts be held only at such places and under such circumstances that all members of this Association are free to attend, and that this directive be sent at once to all parties concerned.

## **Pharmacy Is Worth Fighting For**

Pharmaceutical Education as it Relates to the  
Modern Practice of Pharmacy\*

**ROBERT A. HARDT**

**Vice President, Hoffman-La Roche Inc. and  
President, American Pharmaceutical Manufacturers' Association**

Mr. Toastmaster, ladies and gentlemen of the American Association of Colleges of Pharmacy and the National Association of Boards of Pharmacy:

It is obvious that Governor Rennebohm learned during his experience as Governor of Wisconsin that a speech need not be eternal to be immortal.

I have been told that I am the first person from industry who has had the privilege of speaking at your annual dinner. I want you to know that I am deeply grateful for this honor and privilege.

Perhaps you should be aware that two of my sponsors

\*An address delivered at the Joint Banquet of the American Association of Colleges of Pharmacy and the National Association of Boards of Pharmacy at the Empress Hotel, Miami Beach, Florida, May 2, 1955.

and teachers, Dean Burt and Doctor Lyman, are probably at this moment quite apprehensive. They know that I am not an academician. They know that I am not supersaturated with culture. They even know that I would have been elected to Phi Beta Kappa if it had not been for a "B"-average.

Seriously, I suspect Dean Burt and Doctor Lyman, and perhaps others in this audience, might be worried about a businessman with leanings toward the marketing side—particularly a pharmacist turned executive—standing at this lectern. Nevertheless, I hope those who are apprehensive and nervous will sit back and relax for two reasons:

First, I have thought about this speech for a long time and have worked very diligently in its preparation.

Second, I have had one of my associates, a young lady who is an English major from Vassar, remove the split infinitives, the dangling participles and the obvious redundancies.

Perhaps I should have also included double negatives.

Recently I heard Dr. Karl Bambach tell an interesting story about a Washington, D. C., cab driver. This cab driver was a keen observer and a modest philosopher as well as an ardent defender of individual enterprise.

One day this cabbie took some tourists on a sight-seeing ride. He stopped in front of the Archives Building, that imposing structure at Seventh Street and Constitution Avenue. Over the massive columns is the inscription, "What is Past is Prologue." The taxi driver pointed out the statement and commented, "That saying is really hard to understand. But knowing what goes on in this town, the best way I can explain it is to say that it means, 'You ain't heard nothing yet.'"

Perhaps I should recommend to this audience that you will do well to keep this in mind.

But, I am confident, even if Dean Burt and Doctor Lyman are less so, that I can deliver a message which will be of interest, and not too shocking, to an erudite audience such as this one.

Perhaps now that I have confessed some inadequacies, I should qualify myself in your eyes. The best qualification I can offer is the fact that I have visited with pharmacists from all forty-eight states during the past few years. I have

had the privilege of talking at pharmaceutical meetings in over half of the forty-eight states during recent years. What is more important, I have seen at firsthand the changes, movements and trends which have so markedly changed the nature and practice of pharmacy during the past quarter century.

You, as educators and as Board of Pharmacy officials, have a very direct interest in these changes. They affect you and your activities. This effect is profound and inexorable.

I am not here to tell you how to run your business or to conduct your activities. I am not qualified to do that. Even if I were, I would not attempt to do so because I learned long ago that this is the most unpopular and unproductive activity anyone can undertake.

It happens that I like pharmacy. I have always liked it . . . in college, in my father's drugstore, in the army hospital pharmacy and in the pharmaceutical industry. So why, you have a right to ask, am I not *practicing* pharmacy?

The answer is simple. I didn't like the long hours so I went into industry, worked hard for a long time and finally became an executive and now do I have long hours—long hours of work, study, travel, speech writing and sometimes worry and even some frustration. But I still love pharmacy and that is why I think it is worth fighting for.

Because I love it and because I think I know something about it, I know pharmacy is not without its weaknesses. In fact, it has several weaknesses. Here's one weakness, and a fairly serious one: There are too many people in pharmacy, particularly in the practice of pharmacy, who don't like it.

Gilbert Highet in his book, *The Art of Teaching*, tells the story about Toscanini and the first violin:

Toscanini arrived in a new city and took over the direction of an orchestra he had never conducted before. After the first few minutes, he noticed that the first violin looked odd. He was playing well enough, but his face was distorted and he grimaced as though he were in great pain. Toscanini stopped the orchestra and asked, "Concert Master, are you ill?"

"No, thank you," he said, "I'm quite all right, Maestro. Please go on."

And off they went again.

But the next time Toscanini glanced at the first violin, he saw him looking worse than before. His brow was furrowed with deep clefts; he was sweating painfully and breathing hard. "What's wrong?" asked Toscanini, "are you having an attack? Do you want to lie down for a while?"

"No, I'm not ill," said the first violin.

"Well, what on earth is the matter?" said Toscanini, "you look awful—you're obviously suffering."

"To be quite frank," said the first violin, "I hate music."

And some pharmacists hate pharmacy, some physicians hate medicine, some housewives hate kitchens and some politicians hate people.

If you agree that this is true, then you have the right to ask another question. It is an obvious question. What can be done about it?

This answer is not so simple. I don't know the complete answer. I do know that people choose a career and then seek to find what is bad about it. It is hard to convince people that they should look for the good in what they do. Most of us here are convinced that what we are doing is worth while. Otherwise, we wouldn't be here.

The educators in this room and the Board of Pharmacy people also know that the practice of pharmacy has changed. All of us are obliged therefore to look to the future and see what these changes mean and what can be done about them. None of us here brought these changes about. Progress has brought the changes in the practice of pharmacy and progress will bring the changes in the training of pharmacists to meet the new demands.

Today, as well as in the future, the pharmacist is and will be the therapeutic consultant to the physician and not the handmaiden which he once was. If this is to be the pharmacist's primary function, how must he be trained?

Well, in the first place, he needs a better education to be a consultant than he did to be a handmaiden. It requires more intellectual capacity to know the fine distinctions in the newer therapy than it did to know the refinements in *compounding* at the prescription counter. Perhaps it doesn't require a college education to count and pour but it does re-

quire an education—and a good education—to perform the following functions which, in my opinion, will comprise the pharmacist's future role:

1. As a *specialized* retailer dealing in products for the treatment and prevention of disease . . . products for better health.

2. As a businessman who understands the economics of his job. For example, today it is a major responsibility to understand and practice efficient inventory control.

3. As an instructor of the people in his employ.

The successful pharmacist of the future must know how to train the people who work for him. The proprietor of the pharmacy of the future will direct the activities of a larger number of people. He will not be able to accept the statement that the best way to delegate responsibility, the best way to develop people, the best way to supervise people is just to throw them in and let them swim. I am sure that people who say this really mean that an employee should be given authority and responsibility and then allowed to do a job without constant checking and continual supervision. I do not, however, believe that they intend to deny the advisability of help in the form of training and guidance.

If I am right, the conflict is purely a matter of semantics. Yet those who make these observations are too often interpreted as meaning exactly what they say.

A sound principle, it seems to me, is the following: When a person is given a job in a pharmacy, he should be given all possible help in the form of the best experience to date as to how that job should be done. Just as there is a great body of know-how for the profession as a whole, there is a body of specific job know-how.

Human waste, often to a tragic degree, is the usual result of throwing an individual into a job and leaving him to his own fate and devices.

The pharmacist of the future must be educated in a way that he will understand training to be help and guidance to others as they perform their tasks.

4. As a combination business and professional man who knows how to be businesslike and yet understands the need for putting real character into everything he does.

5. As a citizen of his community.

In order to serve the people of his community in a manner which will bring him the esteem which a professional man deserves, he will need a better basic education than even that available to him in the past.



I cannot offer to you a specific curriculum which will make all this possible. I do know, however, that the pharmacist of the future will need to know more than the sciences and will need to understand economics, the humanities, communication (written and spoken) as well as the arts. He will require a well-rounded education to take his rightful place among the other business and professional men of his community.

If he is to fulfill his role as therapeutic consultant to the physician, he will require, in addition, a *specialized* and profound knowledge of modern therapeutics.

I am sincere in the belief that even more emphasis must be placed on the pharmacist's indoctrination. He must have the kind of indoctrination that will leave no doubt that what he is doing is worth while, that will leave no room for disbelief and that will remove the unfortunate feeling of inferiority which sometimes displays itself in the pharmacist's demeanor.

Some of us here tonight might well be envious of Dr. Rufus Ashley Lyman, who, while not a pharmacist, has devoted a lifetime of work to his adopted profession . . . pharmacy. Sometimes foster parents make better parents than real parents.

We might also be envious of the sense of satisfaction he must take from the influence for good he has been on thousands of pharmacists throughout this country. This, I can say most emphatically, includes your speaker.

And last, for those of us who are beginning to notice a few signs of maturity, we might envy him his youth, for his is the youth of spirit that never grows old. God bless Doctor Lyman.

Dr. A. J. Cronin tells this story of Victor Hugo:

A century ago, when Victor Hugo was in exile, ill and persecuted by his country, he climbed a cliff overlooking a harbor each evening and gave himself up to profound meditation. At the end of this meditation, he would rise and, selecting a pebble of varying size, sometimes small and other times large, he would cast it with satisfaction into the water beneath.

This behavior did not escape the notice of some children who played nearby; and one evening a little girl, bolder than the rest, pushed forward. "Mr. Hugo," she asked, "why do you come here to throw these stones?"

The great writer was silent; then he smiled briefly and said, "They are not stones, my child. I am throwing self-pity into the sea."

In this symbolic act there is a powerful lesson for all of us here tonight. Many of us, despite our manifold advantages, have developed to an extraordinary degree the capacity for being sorry for ourselves. This capacity, unfortunately, displays itself all too frequently among the members of our profession.

I cannot stress too strongly that only those who believe in what they are doing will take real satisfaction from their work and will become dedicated to their tasks. Most people of character cannot throw themselves wholeheartedly into a career which they do not believe in deeply. There is more in pharmacy in the way of service to mankind than in most careers. The basic needs of life were once only three in number—

Food  
Clothing  
Shelter

*Today* we must add a fourth—health. How many businesses or professions offer opportunity for more than the exchange of dollars for goods and services?

Yes, pharmacy is worth fighting for. Fight we must because of forces at work which threaten its position in the health program of our nation.

Those of us who tread the commercial and professional walks of life must consciously realize every day that, if we make a God of materialism, if we seek personal gain by deceit, and if we place power over probity, we are doomed to failure as pharmacists or as individuals. The same is equally true of the enterprises which we or our students might establish.

Those who bear the responsibility of directing commercial enterprises ought not regard seeking after adequate profits as an end unto itself. They may regard profit as the

spark plug in our commercial or professional mechanism which has raised the American people to the highest level of well-being in all of history.

We here have deep responsibilities to many groups—to students, to pharmacists, to physicians, to employees—not the least of these is to the American democratic way of life.

In closing may I quote a line from the late Dr. George Crile of the Crile Clinic in Cleveland. Doctor Crile said:

"In the future the treatment of disease will be regarded as failure."

I interpret this to mean that the real objective of medicine is to keep well people well. This is a worth-while objective. It will not be reached in our time nor in our children's time. But progress is being made, painfully slow as it may seem. The health professions can, however, take infinite pride in the fact that they are making significant contributions toward the achievement of that goal.

## **Progress and Problems in Graduate Instruction in Pharmacy**

**MELVIN W. GREEN**

**Director of Educational Relations**

**American Council on Pharmaceutical Education**

The American Council on Pharmaceutical Education does not accredit graduate work, but it acknowledges such as a part of the program of an institution where such exists. It is not possible to be associated with accreditation activities and not recognize the importance of graduate work to pharmacy and to pharmaceutical education. It is from graduate programs that we can expect most of our leadership in certain areas to come. In the long run, teaching and scholarship are likely to be improved largely as a result of the elevation of quality standards in the graduate area.

Council activities take the Director into contact with other accrediting bodies and educational groups. Such contacts make it clear that there are many unsolved problems in

graduate education and that many of pharmacy's problems in this respect are part of larger problems and are not necessarily peculiar to pharmacy.

American graduate work is said to be unique in many respects. In 1945, Dr. Hollis of the United States Office of Education published the results of a study in a book entitled *Toward Improving Ph.D. Programs*. The first chapter of this book is summarized in the *American Association of University Professors' Bulletin* under the caption "Forces that Have Shaped Doctoral Work". Hollis points out that the first earned Ph.D. in the United States was granted by Yale University in 1861 and that it represented 2 years of work beyond College graduation. During the early years, the Ph.D. was granted both as an earned degree and *honoris causa*. By 1899 only about 35 per cent of the Ph.D.'s were earned. Thus the period prior to 1900 might be called the pioneering period, a period when many schools were developing graduate programs with the long range desire of having the apex of our educational system in the United States rather than in Europe and Britain.

By 1900, twenty of the fifty schools offering earned degrees had passed from this pioneering period into what Hollis speaks of as the "era of standardization" when such institutions showed a desire to protect the practices that they had developed independently. It was early in this period, in fact in 1902, that the first American Ph.D. was granted for pharmaceutical work at the University of Wisconsin. Over the years since then there has been a gradual increase in graduate work offered in schools of pharmacy.

In 1945 Dr. Du Mez<sup>2</sup> reported only 85 graduate students in pharmacy schools in the United States. It was soon recognized that this area would have to be increased if we were to obtain the numbers of teachers and research workers needed by the industry and by our colleges. Enrollment statistics circulated by the American Association of Colleges of Pharmacy show 413 graduate students by the year 1950-51 with an increase in numbers until 1954-55 when the rather startling number of 612 was reached. It is interesting to compare these

data with those of Jaracz<sup>3</sup> who has reported on total graduate enrollments from 1900 to 1954. Jaracz finds that the number of earned degrees conferred at the graduate level has increased at a much more rapid rate than the total population, the population of college age and the total number of degrees conferred annually at all levels. Relatively greater gains have been made at the master's level than at the doctorate. His conclusions regarding the more recent times are especially interesting. "Whereas the total number of degrees conferred (at all levels) reached its peak in 1950, it was not until 1951 that the total number of graduate degrees reached its peak. Subsequent to 1951 the number of master's and second professional degrees declined annually, while the number of doctorates continued to increase. Inasmuch as the increase in doctorate has not been great enough to compensate for the decrease in the number of master's and second professional degrees, the period since 1951 has been one of decrease for graduate degrees generally." While I do not have precise figures for pharmaceutical graduate degrees, there does not appear to be any such leveling off. I bring out these figures because graduate education is much more expensive than undergraduate and if we are to continue to maintain programs of such magnitude, it is obvious that we must have funds to carry on at the proper level.

A part of the 1955 report to the sponsors of the American Council on Pharmaceutical Education is a summary of graduate programs in Accredited Colleges of Pharmacy. The report shows that 49 colleges now offer graduate work to some extent. Five of these schools have one graduate student each, 12 schools have from 2 to 5 students, 6 schools have from 6 to 10 students, 13 schools have from 11 to 20 students and 8 schools have more than 20 students each. The three largest graduate schools have 62, 50, and 41 students respectively. In pharmacy, 36 schools offer the master's degree and 20 the doctorate; in pharmaceutical chemistry 38 schools offer the master's and 24 the doctorate; in pharmacognosy 28 schools offer the master's and 16 the doctorate; in pharmacy administration 4 schools offer the master's and 3 the

doctorate. Pharmacology is in a somewhat different position since, frequently, all advanced work is given only in the School of Medicine. Nevertheless, a program at the master's level is offered in 27 schools and at the doctorate level in 14 schools either in the School of Pharmacy or as a joint program with the School of Medicine. Fifteen schools offer some type of master's program in hospital pharmacy; in 5 cases the degree is not given through the graduate school.

All of these data show that at least so far as numbers are concerned, definite progress is being made in the graduate area. But this is only the quantitative side. Let us discuss the more qualitative side of the picture.

In discussing graduate education in the more qualitative sense, it is necessary to be somewhat critical. It is my hope that such criticism will be recognized as being impersonal and that it will be considered as positive criticism intended to be helpful. Teachers of graduate instruction have my utmost respect. Most of them have heavy undergraduate teaching duties and committee responsibilities as well as teaching and research duties in the graduate field. Such loyalty to an ideal and willingness "to go the second mile" can win nothing but praise and respect.

The qualitative phases of graduate work in pharmacy and allied fields will be discussed in terms of (1) institutional resources (2) staff (3) programs (4) students and (5) outcomes.

**Institutional resources:** Before an institution considers developing graduate work, its undergraduate program should be so strong in faculty, library, and physical and financial resources that it is fully justified in offering advanced work instead of using all its resources to improve its present program. The cost of graduate instruction can rarely be met from tuition income and, in fact, there is reason to believe that a graduate program costs the institution as much as three thousand dollars per student. Physical facilities for graduate work far exceed undergraduate requirements.

Space requirements are important in graduate programs. A graduate student must have research space completely re-



moved from areas used for undergraduate instruction. His laboratory work area requirement is roughly 3 or 4 times that of an undergraduate student. Since note-taking and record keeping is an important part of such a program, adequate desk space is needed.

Specialized equipment such as research microscopes, spectrophotometers, calculating machines, and the like, which are used frequently, should be provided and, in addition, the student must have access to still more unusual equipment if the research requires it. The well-trained pharmaceutical research worker today is expected to have familiarity with many research tools. The laboratory curiosity of yesterday is the commonplace of today.

The library, too, must be materially expanded. Long runs and, where possible, complete runs of pertinent periodicals are needed and these should be available in foreign languages as well. Such important compilations as "Beilstein", and Abderhalden's "Handbuchs", which have little undergraduate significance, are necessary. In short, the library should contain as much reference material of scholarly import as is possible. Areas of specialization need especially complete coverage.

In short, to operate a graduate program the facilities of a college must be adequate to enable the student to make at least a respectable beginning on a significant project or problem in his field of study.

**Staff:** A faculty member who gives graduate instruction must himself evidence thorough training and mastery in the field of his teaching. In the *Minimum Standards for Master's Degree Programs* of the Department of Instruction of the Commonwealth of Pennsylvania<sup>1</sup> it is stated that "A primary criterion for determining the acceptability of an institution to offer graduate instruction leading to advanced degrees is its acceptance of research as a serious enterprise as evidenced by its capacity for continued productivity. Continuity of faculty effort over at least a five-year period prior to application for approval to offer a graduate program is requisite to any successful accomplishment of the aims of graduate



education." It is not sufficient for teachers to have the training they must have the will to pursue scholarly activities with a zeal. A staff that does not possess such zeal and steadfastness in the realm of scholarship and research can scarcely hope to indoctrinate new scholars.

The prime purpose of a graduate school is the development of scholars. One of the principal means of developing scholars is through a close student-teacher relationship. This is mentioned, because occasionally this relationship appears to break down. Young Ph.D.'s indicate occasionally that they do not seem to have been given insight into planning research; too often they appear to have been used as extra hands for developing the research interests of the major professor. When the student cannot extend his own research for fear of entering his major professor's domain, sometimes he is left with little imagination in starting a program of his own. Stimulating leadership frequently would prevent this and possibly lessen the number of stillborn Ph.D.'s.

In order to help attain this maximum student-teacher relationship, suitable provisions need to be made for relieving graduate instructors of full-time undergraduate teaching, thus enabling them to engage in conferences with individuals or small groups and to provide more personal guidance in research. This frequently is not a simple administrative problem to solve. Instructors sometimes seek relief from normal instructional duties in the belief that they will conduct or supervise more research, and then fail to do so. The relief from more routine duties should come after demonstration of performance, but after the demonstration, the relief should come promptly. In considering establishing a graduate program one should not lose sight of the fact that such relief in undergraduate teaching ultimately will be necessary.

**Program:** Definition of program cannot be divorced from personality, education and background of the instructors. Central programs of individual students should be strong in terms of those courses needed to assure professional competence in the field. Auxiliary courses must be available to strengthen and broaden the core. It is almost impossible to

envision strong programs that do not provide for the student taking courses with students majoring in other, but related fields such as advanced organic chemistry, physical chemistry, organic characterization, physiology, biochemistry, microbiology, plant physiology and pathology, and statistics. Some familiarity with the present status of scholarship in these related fields is bound to be helpful to the young Ph.D. in increasing his vision and strengthening his approach to research.

In areas as applied as pharmaceutical subjects of necessity must be, it is tempting to emphasize application at the expense of the more basic areas of learning. Such conflicts between the vocational and technical approaches and intellectual standards have been discussed by Deans Hudson and Dewey of Ohio State University<sup>5</sup> who say: "We must unceasingly emphasize principles, concepts, hypotheses and ideas..... those abstractions on which knowledge is built and on which it grows. The respect for free inquiry is the keystone of graduate education, and not the glorification of technics and methods so prized today by those who think of immediate ends in education. The spirit of inquiry rightly pervades all graduate work, if learning is really free in a free society. Freedom in the search for truth is an end in itself as well as a means of finding truth, and we insist on the supreme and unassailable value of the free spirit of inquiry, at the graduate level. Without it, graduate work is little more than a routine extension of vocational education."

Some colleges of pharmacy offer graduate work at the master's level only while others carry at least a part of the program to the doctorate. There are sound reasons why institutions who are in the position to develop master's programs only, do so such as: (1) to help keep the staff alert and scholarly (2) undergraduate students see a graduate program in operation and may thus be stimulated to start graduate work and (3) a graduate program, be it ever so modest, is often valuable in strengthening an undergraduate program. Such programs are frequently not terminal since

at least the more gifted students usually then go to another institution for their Ph.D.'s. Schools having master's programs only have an obligation to see that students' programs are so arranged and so strong that they can be continued with little loss of time. In too many cases students with the M.S. degree who go elsewhere for the Ph.D. have to start virtually anew. Inadequate background in mathematics and physical chemistry is usually responsible for delay in pharmacy, pharmaceutical chemistry and pharmacognosy. Inadequate background in the biological sciences and biometry is apt to delay students in pharmacognosy and pharmacology.

Vocationally, persons with advanced degrees usually either go into research and development in industry or into teaching. Industry may be roughly divided into two categories as far as pharmaceutical graduates are concerned. There is the relatively large pharmaceutical manufacturer who has developed a high degree of specialization in its research program on the one hand and the smaller manufacturer where no such a degree of specialization takes place, on the other. In the case of the larger manufacturer the pharmacist is either in active competition with trained specialists in such fields as organic chemistry, pharmacology, bacteriology, etc. as a specialist himself in one of these fields or else he is largely restricted to activities pertaining to the development of dosage forms. Where he is one of the clearly defined specialists such as an organic chemist, he must be as well-trained in the basic field of specialization as those non-pharmacists who major in these fields. In addition, he should bring to that area a pharmaceutical outlook which may be somewhat different than that of the usual specialist. For this reason some research directors advocate undergraduate training in pharmacy followed by graduate training in a basic science. If the pharmaceutically trained graduate degree recipient is going into the area of dosage form development, it would seem to be necessary for his training to be very broad and very thorough. In discussing the matter with a number of pharmaceutical manufacturers, it appears that the pharmacist needs to be particularly well trained in physical chemistry and organic chemistry

and must be capable of bringing to bear a type of productive imagination that is akin to that of the inventor. The pharmacist must know enough about all of the areas of specialization to know when and how to use other specialists and to be able to interpret the results of their work.

Pharmaceutical workers who are employed in smaller manufacturers' laboratories should have a wide variety of techniques at their disposal. In such a research laboratory the research worker often must function in many capacities. There is not nearly the degree of specialization possible so that sometimes he may have to function as an organic chemist and then carry a new drug through its entire developmental process including the pharmacology and even must carry it through administrative phases such as labeling, writing new drug applications for the Food and Drug Administration and the like. It takes an unusually skilled investigator to produce pharmaceutical products which can be in competition successfully with those of the larger and more financially successful manufacturers.

Thorough training in the use of the technical literature cannot be overemphasized in the development of people for research activity. There is developing a notion that there is not the necessity for the review of the literature that was once the case. This philosophy has led to a number of unfortunate experiences. Methods of preparing synthetic medicinal agents have been developed and patented which were actually inferior to methods already available and recorded in easily accessible source material. Furthermore, a number of recent graduate students have been embarrassed in their publication efforts because the journal referees have pointed out that certain phases of their research had been done previously and published, and these facts were not accounted for by the present authors.

Careful record keeping is another attribute that graduate students need to have brought to their attention. The scrupulous care in keeping, dating and witnessing records is well known to those people who are close to patent work. Fortunate indeed is the student who has been well-trained in

keeping adequate and thorough records of his research activity. Of no lesser importance is the skill in writing clear, concise reports that can lead to intelligent action. Lack of reporting ability is a constant criticism of research directors. Perhaps one way to develop this skill is to insist that the research worker write frequent and meaningful progress reports which are subjected to rhetorical, as well as technical, criticism.

Careful consideration should be given to the choice of research projects. The research project should do more than develop certain research skills, it should open vistas to the student showing him where further research needs lie. The choice of a proper research problem is often not easy, if it is to be characterized as being consequential. The most highly competitive areas where industry and others are undoubtedly spending thousands of dollars and placing various specialists on the project are too apt to fail in graduate work because of the lack of experience of the student and the amount of research time that is available. On the other hand, the graduate student can often be working on a problem on the fringe of certain so-called "hot" problems where he can make worthy contributions and develop an insight into the over-all problem without having to be placed in such a highly competitive position. In this way we can create a corp of specialists in areas of moment. When a new broad research field opens up there ought to be specialists in some of our pharmacy colleges that will be turned to for advise and experience in that particular area.

The training of those who are planning teaching careers is somewhat different from those going into industry. A number of college administrators have been quite critical recently of the lack of knowledge about educational procedures on the part of many of the young Ph.D's going into teaching for the first time. Obviously, it is unfair to expect these young men and women to be experienced teachers in their first position. They should, however, be familiar with certain fundamentals. They should know how to develop a sound syllabus of a prospective course; they should know some-

thing of the different types of examinations and the relative merits and disadvantages of each; they should know something about curriculum planning and the relationship of courses to each other in a balanced pharmaceutical curriculum; and they should know something about planning laboratory courses. In addition, they should have developed a zeal for research and for a scholarly approach to their teaching. Several institutions have a fine reputation for turning out teachers having something of these qualifications while in other cases the student has been left to shift for himself in these areas.

**Students:** The selection of the proper students to enter graduate work in the pharmaceutical areas, is of course, of the utmost importance. Foremost to consider is the matter of grades. Most graduate schools require an average of at least a "B" grade for unqualified admission to the graduate school. Such schools frequently admit students with a few tenths of a quality point below the "B" requirement, but do so on a trial basis. While I have not had an occasion to make a statistical study of the matter, casual observation would seem to indicate that we have too many students in graduate work that are in this latter category and too few that are distinctly well above the "B" requirement. In addition to the matter of grades, there are other important qualities to be considered. It must be recalled that the graduate school is, in a sense, a professional school for the training of future intellectual leaders. Therefore qualities of intellectual leadership should remain uppermost.

A number of schools of pharmacy have senior research programs available either on an elective or a required basis. Senior research, while it has many disadvantages, does offer the advantage of assistance in locating potential research skill and stimulating students to continue their education.

Major professors have a profound responsibility to the student once they have accepted him for graduate work. The future careers of such students are in the hands of the major professor and it is a very serious responsibility indeed. Graduate students have surrendered from two to five additional years from what can be important productive years of their



lives in order to prepare themselves for greater scholarly activity and research. Therefore, care is necessary in developing each student's program and in giving him the utmost attention through every phase of that program. Upon occasion instructors have procrastinated with respect to a student's program in such a way that the student's receipt of his degree was unduly delayed. This may affect, materially, his ability to obtain a particular position or to advance in rank and salary in a position that he already has.

Another important responsibility is that of terminating a student's graduate career at the master's level when it is apparent that he does not have the qualifications for continuing to the doctorate degree. When poorly qualified persons are eventually awarded a doctorate, it reflects upon all pharmaceutical graduate work. This is unfair to the student involved and it is unfair to Society.

The major professor has a certain degree of responsibility in the placement of his graduate students also. It is his responsibility to determine that the individual has the qualifications for whatever degree he is seeking and if he has those qualifications the professor should be willing to spend a reasonable effort to help the student secure a position where he can make best use of his talents. It is embarrassing to find that one has produced a graduate student whose qualifications are such that he is difficult to place. While support of the graduate student in starting a career is important, there is also a responsibility to the prospective employer in giving him the best possible analysis of the training and ability of the student. Some major professors have a fine reputation for the frankness and honesty with which they define the qualities and seeming limitations of their students. On the other hand there are a few major professors who have the reputation for stating that each graduate is the best that they have ever had. A recommendation of this latter type makes it difficult for a prospective employer to select an employee and in the long run mitigate against the student.

**Summary and Outcomes:** In conjunction with The Pharmaceutical Survey, Blauch<sup>6</sup> made a study of professional training on the graduate level in which he cited 5 major prob-



lems: (1) obtaining adequate financial support (2) recruiting and maintaining competent and sufficient staff (3) recruiting superior students (4) providing adequate physical facilities and (5) furnishing adequate instruction which is related to, and supports the instruction in, pharmaceutical fields.

It seems to me that these 5 major problems remain with us still, but that we have made distinct progress in each of these points. It is now eight years since Blauch's study was made for The Pharmaceutical Survey. It would appear that such a study should be made again in the near future to aid in determining the strengths and weaknesses of present programs and directions that should be taken in the immediate future. Such studies might follow in part, the studies made by the Committee on Professional Training of the American Chemical Society. It is my personal opinion that such a study could be of considerable value to all colleges having graduate programs and any colleges that are considering inaugurating such programs.

In the meantime, each college that maintains a graduate program might review its own program from time to time. In such a review there are a number of important questions to ask such as the following:

- (1) What are the specific objectives of the graduate program; is there a need for changing the objectives?
- (2) To what extent can the objectives be met with the present program, staff, and resources?
- (3) Should the program be expanded either numerically or in terms of opening up new fields? Can such expansion take place without weakening the present graduate program or the undergraduate program?
- (4) What devices can be used to ensure that each student has a closely-related, well-balanced over-all program; how should the College assign the direction of individual students; should there be central approval of research projects?
- (5) How effective is the present system of special examinations such as comprehensive and qualifying examinations; who should conduct such examinations, who grade them, what is the point of evidence of satisfactory performance?

Just as the soundest undergraduate programs are apt to be the ones which are periodically subjected to serious

and detailed review, so graduate programs can be strengthened by occasional stocktaking.

In closing I wish to quote from the statement of objectives of graduate work as noted by the Committee on Graduate Work of the Association of American Universities<sup>5</sup>. The objectives of a graduate school should be ". . . . . to inspire and educate at an advanced level of instruction those men and women who are to be intellectual leaders in the various professions and in research. Its basic obligation is to establish and maintain standards of excellence in this training. It is responsible to students for an educational program which requires that they achieve maximum personal development and attain to a reasonably high standard of competence. It is responsible to the public that degrees be conferred in merited fashion only and that personnel be of good character and of promise as useful citizens. And it is responsible to prospective employers for persons qualified to embark on certain tasks and trained in a scholarly approach to some important field of problems."

#### References Cited

- (1) Hollis, Ernest V., "Forces That Have Shaped Doctoral Work," **American Association of University Professors**, 31, 357-82, 1945.
- (2) Du Mez, A. G., **American Journal of Pharmaceutical Education**, IX, 363, 1945.
- (3) Jaracz, William A., "Trends in Graduate Education," **Higher Education**, XI, 87-89, February 1955.
- (4) "Minimum Standards for Master's Degree Programs," Commonwealth of Pennsylvania, Department of Public Instruction, Document DPI-HE-1, Harrisburg, Pa., 1954.
- (5) Quoted from reference (4).
- (6) Blauch, Lloyd E., "Professional Training on the Graduate Level," **The General Report of The Pharmaceutical Survey**, pp. 108-118, American Council on Education, Washington, D.C., 1950.

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## Marriages

**Dr. W. J. Sheffield**, assistant professor of pharmacy, and **Mrs. Jean Watson Michaels**, assistant pharmacist in the student health center, University of Texas, in the First Methodist Church on June 3.

**Dr. Charles B. Granberg**, Drake University, and **Mrs. Margaret Daly Holcom**, on April 8, 1955.

## **Books, Reference Works and Periodical Literature Recommended for College of Pharmacy Libraries\***

### INTRODUCTION

Materials included on these lists represent the opinions of teaching faculty members and librarians in accredited Colleges of Pharmacy from all over the country. The lists were compiled in this manner. Certain subject divisions of the field of pharmacy were selected for appraisalment: Pharmaceutical chemistry, Pharmacognosy, Pharmacology, Pharmacy and Pharmacy Administration. The scope of each subject was determined by the definitions contained in *The Pharmaceutical Curriculum: A Report* prepared for the Committee on Curriculum, American Association of Colleges of Pharmacy, by Lloyd E. Bauch and George L. Webster, published by the American Council on Education in 1952.

Questionnaires were prepared for each of these subjects, asking the recipient to: (1) List the ten books and works of reference in the field of ——— most essential to the undergraduate student in a College of Pharmacy; (2) List ten additional works in the same subject field essential for background work leading to the Master of Science degree in Pharmacy; (3) List 20 periodical titles, including serial publications, annuals and yearbooks, which are considered essential for the student in the field of ——— in a College of Pharmacy.

The questionnaires were sent to pharmacy librarians and to the deans of all seventy-three member colleges of the American Association of Colleges of Pharmacy with the request that they be distributed to all faculty members directly connected with each subject field.

The lists presented here include the items mentioned most frequently on the returned questionnaires. No item that received less than 10 votes is included. The number of vot-

\*A Report of the Medical Library Association Committee on Standards and Criteria for Pharmacy School Libraries, presented at Milwaukee, Wisconsin, May 19, 1955.

The Committee is most anxious to express its thanks to all of the members of the teaching staffs of the Colleges which participated in this survey. It has not been possible to thank anyone individually so the Chairman requested that a note be added expressing their appreciation.—Ed.

ing participants from the teaching faculty, the number of participating librarians, and the number of schools represented is included at the beginning of each subject listing. The symbols used to indicate special categories are noted at the head of each subject grouping.

There is, of course, duplication of titles because of the overlapping of subject areas. The committee feels, however, that the lists provide a useful guide to the basic resources essential in a College of Pharmacy Library. Publication dates are included only as a guide as to what was the latest edition known to the committee at the time the list was compiled. The Committee feels that if an item is important enough to be included, the latest edition should always be available in the library.

The periodicals on the list are arranged according to their entry in the *Union List of serials*. The list includes the titles mentioned most frequently on the returned questionnaires. No title that received less than 10 votes is included. The date included with each periodical entry indicates the date of the first volume published. The publisher has been included for the annual and yearbook publications. The acquisition of back files of periodicals depends on the curriculum in each college and on the library resources available in the immediate neighborhood.

The list does not include titles of books and reference works that the committee feels are essential for every library and should be on the "Ready Reference Shelf" in every Pharmacy Library, such as the following:

- United States Pharmacopeia
- The National Formulary
- New and Nonofficial Remedies including Tests and Standards
- United States Dispensatory
- Pharmaceutical Recipe Book *o.p.*
- Physicians' Desk Reference
- Modern Drug Encyclopedia
- Facts and Comparison
- Unlisted Drugs
- Blue Book (American Druggist)
- Red Book (Drug Topics)
- Green Book (Oil, Paint and Drug Reporter)
- Merck Index

Merck Manual

A Chemical dictionary

A Medical dictionary

A Handbook of chemistry and physics

The Committee is aware of several new excellent texts and reference works which do not appear on these lists. Since these lists were compiled from the opinions of teaching faculty members, it is obvious that new books, which were not available at the time the list was compiled, are not included.

The Committee: Charlotte Coffman, Librarian Temple University School of Pharmacy; Mrs. Emilie Dole, Librarian Brooklyn College of Pharmacy; Mrs. Ina Pearson, Librarian Idaho State College, College of Pharmacy; Clara Robeson, Librarian Massachusetts College of Pharmacy; Mrs. Dorothy Wheeler, Librarian University of Illinois College of Pharmacy; Mrs. Elizabeth Johnson, Chairman, Librarian Philadelphia College of Pharmacy and Science.

January 31, 1955.

#### PHARMACEUTICAL CHEMISTRY—BOOKS AND REFERENCE WORKS

The titles included in this list represent the opinions of 90 members of the teaching staff and 18 librarians from 57 accredited Colleges of Pharmacy in the United States. The titles were obtained in the manner outlined in the Introduction.

\*Fieser, L.F. and Fieser, Mary. Natural products related to phenathrene. 3rd ed. of the monograph previously entitled "Chemistry of natural products related to phenathrene," by L.F. Fieser. Reinhold. 1948.

†Fieser, L.F. and Fieser, Mary. Organic chemistry. 2nd ed. Heath. 1950.

\*Fuson, R.C. Advanced organic chemistry. Wiley. 1950.

††Gilman, Henry. ed. Organic chemistry. 2nd ed. 4 vols. Wiley. 1943-1955.

\*Guenther, Ernest, et al. The Essential oils. 6 vols. VanNostrand. 1948-1952.

†Harrow, Benjamin and Mazur, Abraham. Textbook of biochemistry. 6th ed. Saunders. 1954.

Symbols in this entire list indicate:

\*Recommended as essential when Graduate studies are offered.

††Received more than 50 votes.

†Received from 25 to 49 votes.

- †\*Hawk, P.B., Oser, B.L. and Summerson, W.H. Practical physiological chemistry. 13th ed. Blakiston. 1954.
- \*Heilbron, I.S. and Bunbury, H.M. eds. Dictionary of organic chemistry. rev. ed. London, Eyre. 1953.
- †\*Henry, T.A. The Plant alkaloids. 4th ed. Blakiston. 1949.
- Hogness, T.R. and Johnson, W.C. Qualitative analysis and chemical equilibrium. 4th ed. Holt. 1954.
- ††Jenkins, G.L. and Hartung, W.H. Chemistry of organic medicinal products. 3rd ed. Wiley. 1949.
- ††Jenkins, G.L., Christian, J.F. and Hager, G.P. Quantitative pharmaceutical chemistry. 4th ed. McGraw-Hill. 1953.
- \*Karrer, Paul. Organic chemistry. 4th ed. Elsevier. 1950.
- †Koltoff, I.M. and Sandell, E.B. Textbook of quantitative inorganic analysis. 3rd ed. Macmillan. 1952.
- \*Manske, R.H.F. and Holmes, H.L. eds. The Alkaloids. Academic Press. 1950—
- Muldoon, H.C. Textbook of organic chemistry. 3rd ed. Blakiston. 1948.
- Noller, C.R. Textbook of organic chemistry. Saunders. 1951.
- †Parks, L.M., Janke, P.J. and Harris, L.E. Inorganic chemistry in pharmacy. Lippincott. 1949.
- Pauling, L.C. General chemistry. 2nd ed. San Francisco. Freeman. 1953.
- \*Rodd, E.H. ed. Chemistry of carbon compounds. Elsevier. 1951-1953.
- ††Rogers, C.H., Soine, T.O. and Wilson, C.O. Inorganic pharmaceutical chemistry. 5th ed. Lea & Febiger. 1952.
- \*Sexton, W.A. Chemical constitution and biological activity. Van-Nostrand. 1950.
- \*Shriner, R.L. and Fuson, R.C. Systematic identification of organic compounds. 3rd ed. Wiley. 1948.
- \*Sumner, J.B. and Myrbäck, Karl. eds. The Enzymes. 2 vols. Academic Press. 1950-52.
- \*Weissberger, Arnold. ed. Technique of organic chemistry. 8 vols. Interscience. 1949-1953.
- \*Wertheim, Edgar. Textbook of organic chemistry. 3rd ed. Blakiston. 1951.
- West, E.S. and Todd, W.R. Textbook of biochemistry. 2nd ed. Macmillan. 1955.
- Willard, H.H., Merriott, L.L. and Dean, J.A. Instrumental methods of analysis. 2nd ed. Van Nostrand. 1951.
- ††Wilson, C.O. and Gisvold, Ole. Textbook of organic medicinal and pharmaceutical chemistry. 2nd ed. Lippincott. 1954. Previously published in 1949 as "Organic chemistry in pharmacy."
- Work, T.S. and Work, Elizabeth. The Basis of chemotherapy. Interscience. 1948.

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##### PHARMACOGNOSY—BOOKS AND REFERENCE WORKS

The titles included in this list represent the opinions of 74 members of the teaching staff and 23 librarians from 50 accredited Colleges of Pharmacy in the United States. The titles were obtained in the manner outlined in the Introduction.

- \*Allport, N.L. Chemistry and pharmacy of vegetable drugs. Chem. Publ. Co. 1944.
- †\*Bonner, J.F. Plant biochemistry. Academic Press. 1950.
- \*Bonner, J.F. and Galston, A.W. Principles of plant physiology. San Francisco. Freeman. 1952.
- \*Britton, N.L. and Brown, Addison. An illustrated flora of northern United States. New edition by Henry Gleason. N.Y. Botanical Garden. 1952.
- \*Cooper, J.W. and Denston, T.C. Textbook of pharmacognosy. London, Pitman. 1931.
- †\*Eames, A.J. and MacDaniel, L.H. Introduction to plant anatomy. 2nd ed. McGraw-Hill. 1947.
- \*Esau, Katherine. Plant anatomy. Wiley. 1953.
- \*Flückiger, F.A. and Hansbury, Daniel. Pharmacographia. 2nd ed. London. Macmillan. 1879. o.p.
- ††Gathercoal, E.N. and Wirth, E.H. Pharmacognosy. 2nd ed. Lea and Febiger. 1947.
- \*Gisvold, Ole and Rogers, C.H. Chemistry of plant constituents. Burgess. 1938. o.p.
- \*Gray, Asa. Manual of botany. 8th ed. edited by M.L. Fernald. Am. Book Co. 1950.
- \*Greenish, H.G. Microscopical examination of foods and drugs. 3rd ed. London. Churchill. 1923. o.p.
- †\*Guenther, Ernest. et. al. The Essential oils. 6 vols. VanNostrand. 1948-1952.
- †\*Henry, T.A. The Plant alkaloids. 4th ed. Blakiston. 1949.
- \*Index Kewensis plantarum phanerogarum; an enumeration of the genera and species of flowering plants from the time of Linnaeus to the year 1835. 2 vols. edited by J.D. Hooker and B.D. Jackson. For list of supplements by various authors see Oxford University Press Catalog. Oxford. 1901-
- \*Johansen, D.A. Plant microtechnique. McGraw-Hill. 1940.
- †Kraemer, Henry. Kraemer's scientific and applied pharmacognosy. Wiley. 1928. o.p.
- Lloyd, J.U. Origin and history of all of the pharmacopoeial vegetable drugs. Wiley. 1928. o.p.
- Mansfield, William. Microscopic pharmacognosy. Wiley. 1929. o.p.
- \*Manske, R.H.F. and Holmes, H.L. eds. The Alkaloids. Academic Press. 1950-



- \*Mantell, C.L. Water-soluble gums. Reinhold. 1947. *o.p.*
- \*Meyer, B.S. and Anderson, D.B. Plant physiology. 2nd ed. Van-  
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- †\*Pratt, Robertson and Dufrenoy, Jean. Antibiotics. 2nd ed. Lippin-  
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- ††Pratt, Robertson and Youngken, H.W. Jr. Pharmacognosy. Lippin-  
cott. 1951.
- \*Rosenthaler, Leopold. Chemical investigation of plants. London,  
Bell. 1930. *o.p.*
- \*Schneider, Albert. Microanalysis of powdered vegetable drugs.  
Blakiston. 1921. *o.p.*
- ††Trease, G.E. Textbook of pharmacognosy. 6th ed. Williams &  
Wilkins. 1953.
- †\*Tschirch, Alexander. Handbuch der pharmakognosie. 2nd ed.  
Leipzig. Tauchnitz. 1930.
- \*Wallis, T.E. Practical pharmacognosy. 5th ed. London, Churchill.  
1948.
- Wallis, T.E. Textbook of pharmacognosy. London, Churchill. 1946.  
*o.p.*
- \*Winton, A.L. and Winton, K.G.B. Structure and composition of  
foods. 3 vols. Wiley. 1932-1937.
- †Youngken, H.W. Textbook of pharmaceutical botany. 7th ed.  
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- ††Youngken, H.W. Textbook of pharmacognosy. 6th ed. Blakiston.  
1948.

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The titles included in this list represent the opinions of 73 members of the teaching staff and 19 librarians from 56 accredited Colleges of Pharmacy in the United States. The titles were obtained in the manner outlined in the Introduction.

- Bastedo, W.A. Materia medica, pharmacology, therapeutics and  
prescription writing. 5th ed. Saunders. 1947.
- ††Beckman, Harry. Pharmacology in clinical practice. Saunders.  
1952.
- †\*Best, C.H. and Taylor, N.B. The physiological basis of medical prac-  
tice. 6th ed. Williams & Wilkins. 1955.
- \*Burger, Alfred. Medicinal chemistry. Interscience. 1951.
- ††Burn, J.H. Biological standardization. 2nd ed. Oxford Univ. Press.  
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- Burn, J.H. Practical pharmacology. Thomas. 1952.
- †\*Clark, A.J. Applied pharmacology. 8th ed. rev. by Andrew Wil-  
son and H.O. Schild. Blakiston. 1952.
- \*Clark, A.J. Mode of action of drugs on cells. Williams & Wilkins.  
1933. *o.p.*

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- \*Cushny, A.R. Pharmacology and therapeutics. 13th ed. rev. by Arthur Grollman and Donald Slaughter. Lea & Febiger. 1947.
- †\*Danielli, J.F. Cell physiology and pharmacology. Elsevier. 1950.
- Davison, F.R. Handbook of materia medica, toxicology and pharmacology. 4th ed. Mosby. 1949.
- \*Farris, E.J. and Griffith, J.Q. The Rat in laboratory investigation. 2nd ed. Lippincott. 1949.
- \*Fulton, J.F. Textbook of physiology. 16th ed. Saunders. 1949.
- Gaddum, J. H. Pharmacology. 4th ed. Oxford Univ. Press. 1953.
- ††\*Goodman, L.S. and Gilman, Alfred. Pharmacological basis of therapeutics. 2nd ed. Macmillan. 1955.
- ††\*Grollman, Arthur. Pharmacology and therapeutics. 2nd ed. Lea and Febiger. 1954.
- \*Heffter, Arthur. ed. Handbuch der experimentellen pharmakologie. Berlin. Springer. 1920-
- ††\*Jackson, D.E. Experimental pharmacology and materia medica. 2nd ed. Mosby. 1939. o.p.
- ††Krantz, J.C. and Carr, C.J. Pharmacological principles of medical practice. 3rd ed. Williams & Wilkins. 1954.
- Lucas, G.H.W. Symptoms and treatment of acute poisoning. Macmillan. 1953.
- McGuigan, H.A. Applied pharmacology. Mosby. 1940. o.p.
- \*Markowitz, Jacob. Experimental surgery. 3rd ed. Williams & Wilkins. 1954.
- †\*Marsh, D.F. Outline of fundamental pharmacology. Thomas. 1951.
- \*Martin, G.J. Biological antagonism. Blakiston. 1951.
- Oldham, F.K., Kelsey, F.E. and Geiling, E.M.K. Essentials of pharmacology. 2nd ed. Lippincott. 1951.
- ††\*Salter, W.T. Textbook of pharmacology. Saunders. 1952.
- ††\*Sollman, T.H. A Manual of pharmacology. 7th ed. Saunders. 1948.
- \*Sollman, T.H. and Hanzlik, P. J. Fundamentals of experimental pharmacology. San Francisco, Stacey. 1928. o.p.
- \*Thienes, C.H. Fundamentals of pharmacology. Hoeber. 1945.
- †Thienes, C.H. and Haley, T. J. Clinical toxicology. 2nd ed. Lea & Febiger. 1948.
- Von Oettingen, Wolfgang. Poisoning. Hoeber. 1952.
- \*Woolley, D.W. A Study of antimetabolites. Wiley. 1952.
- \*Work, T.S. and Work, Elizabeth. The Basis of chemotherapy. Interscience. 1948.

### PHARMACY—BOOKS AND REFERENCE WORKS

The titles included in this list represent the opinions of 96 members of the teaching staff and 18 librarians from 53 accredited Colleges of Pharmacy in the United States. The titles were obtained in the manner outlined in the Introduction.

- \*Army, H.V. and Fischelis, R.P. Principles of pharmacy. 4th ed. Saunders. 1937.
- Bellafiore, I.J. Pharmaceutical arithmetic. 3rd ed. Mosby. 1953.
- \*Best, C.H. and Taylor, N.B. The Physiological basis of medical practice. 6th ed. Williams & Wilkins. 1955.
- Blome, W.H. and Stocking, C.H. Fundamentals of pharmacy. 2nd ed. rev. Lea & Febiger. 1949.
- †Bradley, W.T., Gustafson, C.B. and Stoklosa, M.J. Pharmaceutical calculations. 2nd ed. Lea & Febiger. 1952.
- †Burlage, H.M. ed. Introduction to pharmacy. 3rd ed. McGraw-Hill. 1954. (Formerly published as "Fundamental principles and processes of pharmacy" 2nd ed. 1949).
- \*Clarkson, Ronald. Tablet coating. N. Y., Drug and Cosmetic Industry. 1951.
- \*Clayton, William. Theory of emulsions. 5th ed. by C. G. Sumner. Blakiston. 1954.
- †Crossen, G.E. and Goldner, K.J. Pharmaceutical preparations. 3rd ed. Lea & Febiger. 1952.
- Daniels, Farrington. Outlines of physical chemistry. Wiley. 1948. Successor to "Outlines of physical chemistry" (first published in 1913 as "Outlines of theoretical chemistry") by F.H. Getman and revised by F. Daniels.
- \*DeNavarre, M.G. Chemistry and manufacture of cosmetics. Van-Nostrand. 1941.
- Goodman, L.F. and Gilman, Alfred. Pharmacological basis of therapeutics. 2nd ed. Macmillan. 1955.
- \*Great Britain. General Council of Medical Education and Registration. British Pharmacopoeia. 1953.
- \*Husa, W.J. Pharmaceutical dispensing. 4th ed. Iowa City, Iowa. Husa Bros. 1951.
- \*Jenkins, G.L. and Hartung, W.H. Chemistry of organic medicinal products. 3rd ed. Wiley. 1949.
- †\*Kremers, Edward and Urdang, George. History of pharmacy. 2nd ed. Lippincott. 1951.
- †Lee, C.O. Official preparations of pharmacy. 2nd ed. Mosby. 1953.
- \*Little, Arthur and Mitchell, K.A. Tablet making. Liverpool, Northern Publishing Co. 1949.
- ††Lyman, R.A. et al. eds. American pharmacy. 2 vols. Lippincott. (Vol. 1—Fundamental principles and practices. 3rd ed. 1951; Vol. 2—Advanced pharmacy. 1947.)
- ††Lyman, R.A. et al. eds. Pharmaceutical compounding and dispensing. Lippincott. 1949.
- ††Remington, J.P. Remington's Practice of pharmacy. 11th ed. edited by E. F. Cook and E. W. Martin. Easton, Pa. Mack Publishing Co. *In Press*.

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- Rogers, C.H., Soine, T.O. and Wilson, C.O. Inorganic pharmaceutical chemistry. 5th ed. Lea & Febiger. 1952.
- \*Ruddiman, E.A. and Nichols, A.B. Incompatibilities in prescriptions. 6th ed. Wiley. 1936. o.p.
- \*Schwartz, A.M. and Perry, J.W. Surface active agents. Interscience. 1949.
- ††Scoville, W.L. Art of compounding. 8th ed. by G. L. Jenkins et. al. Blakiston. 1951.
- \*Silver, J.A. and Clarkson, Ronald. Manufacture of compressed tablets. N.Y., Drug and Cosmetic Industry. 1944.
- †\*Smith, A.E. and Herrick, A.D. eds. Drug Research and development. Revere. 1948.
- \*Spalton, L.M. Pharmaceutical emulsions and emulsifying agents. London, Morgan. 1953.
- Stevens, A.B. Arithmetic of pharmacy. 8th ed. by C.H. Stocking and E.L. Cataline. VanNostrand. 1952.
- ††\*Wilson, C.O. and Gisvold, Ole. eds. Textbook of organic medicinal and pharmaceutical chemistry. 2nd ed. Lippincott. 1954. Formerly published as "Organic chemistry in pharmacy" in 1949.

PHARMACY ADMINISTRATION—BOOKS AND REFERENCE WORKS

The titles included in this list represent the opinions of 57 members of the teaching staff and 19 librarians from 41 accredited Colleges of Pharmacy in the United States. The titles were obtained in the manner outlined in the Introduction.

- †\*Arthur, W.R. Law of drugs and druggists. St. Paul, Minn. West. 1947.
- †\*Bader, Louis and Picker, Sydney. Marketing drugs and cosmetics. VanNostrand. 1947.
- \*Brown, Paul and Davidson, W.R. Retailing. Ronald Press. 1953.
- Chute, A.H. and Hall, E.J.W. The Pharmacist in retail distribution. Austin, Texas. Hemphill. 1953.
- \*Converse, P.D. and Huegy, H.W. Elements of marketing. 5th ed. Prentice-Hall. 1952. First published in 1921 under the title "Marketing methods and policies."
- \*Edwards, C.M. and Howard, W.H. Retail advertising and sales promotion. Rev. ed. Prentice-Hall. 1943.
- \*Finney, H.A. ed. Principles of accounting. 4th ed. 2 vols. Prentice-Hall. 1951-1952. First published in 1932 under the title "Introduction to principles of accounting."
- †Heckert, J.B. and Dickerson, W.E. Drug store accounting. McGraw-Hill. 1943.

- Jones, T.H. Detailing by druggists. Romaine Pierson. 1942. o.p.  
 Jones, T.H. Detailing the physician. Romaine Pierson. 1940. o.p.  
 Maynard, H.H. and Berkman, T.N. Principles of marketing. 5th ed. Ronald Press. 1952.  
 ††Nolen, Herman and Maynard, H.H. Drug store management. McGraw-Hill. 1941.  
 ††Olsen, P.C. Marketing drug products. Rutgers University Press. 1948.  
 Peterson, A.F. Pharmaceutical selling, detailing and sales training. McGraw-Hill. 1949.  
 †Pettit, William. Manual of pharmaceutical law. Macmillan. 1949.  
 \*Smith, A.E. and Herrick, A.D. eds. Drug research and development. Revere. 1948.

CUMULATED LIST OF BOOKS AND REFERENCE WORKS

The titles included in this list received a minimum of 10 votes from all subject fields, i.e., any title that was mentioned by 10 or more voters is included. Therefore, some titles will appear on this list but not on any subject listing, but every title in any subject listing will appear here.

- Albert, Adrien. Selective toxicity; with special reference to chemotherapy. Wiley. 1951.  
 †Allport, N.L. Chemistry and pharmacy of vegetable drugs. Chem. Publ. Co. 1944.  
 \*Army, H.V. and Fischelis, R.F. Principles of pharmacy. 4th ed. Saunders. 1937.  
 ††Arthur, W.R. Law of drugs and druggists. St. Paul, Minn. West. 1947.  
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 Autenreith, Wilhelm. Detection of poisons. Blakiston. 1905. o.p.  
 †Bader, Louis and Picker, Sydney. Marketing drugs and cosmetics. VanNostrand. 1947.  
 Baldwin, Ernest. Dynamic aspects of biochemistry. 2nd ed. Cambridge Univ. 1952.  
 Baron, A.L. Handbook of antibiotics. Reinhold. 1950.  
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 \*Beilstein, F.K. Beilsteins Handbuch der organischen chemie. 4 auf. Berlin. Springer. 1918-  
 Bellafiore, I.J. Pharmaceutical arithmetic. 3rd ed. Mosby. 1953.  
 Bentley, A.O. Bentley and Driver's Textbook of pharmaceutical

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- chemistry. Rev. by J.E. Driver. 5th ed. Oxford Univ. Press. 1951.
- ††\*Best, C.H. and Taylor, N.B. The Physiological basis of medical practice. 6th ed. Williams & Wilkins. 1955.
- Blome, W.H. and Stocking, C.H. Fundamentals of pharmacy. 2nd ed. rev. Lea & Febiger. 1949.
- †\*Bonner, J.F. Plant biochemistry. Academic Press. 1950.
- \*Bonner, J.F. and Glaston, A.W. Principles of plant physiology. San Francisco. Freeman. 1952.
- †Bradley, W.T., Gustafson, C.B. and Stoklosa, M.J. Pharmaceutical calculations. 2nd ed. Lea & Febiger. 1952.
- Brewster, R.Q. Organic chemistry. 2nd ed. Prentice-Hall. 1948.
- \*Britton, N.L. and Brown, Addison. An illustrated flora of northern United States . . . new edition by Henry Gleason. N.Y. Botanical Garden. 1952.
- \*Brown, Paul and Davidson, W.R. Retailing. Ronald Press. 1953.
- ††Burger, Alfred. Medicinal chemistry. Interscience. 1951.
- ††Burlage, H.M. ed. Introduction to pharmacy. 3rd ed. McGraw-Hill. 1954. (Formerly published as "Fundamental principles and processes of pharmacy." 2nd ed. 1949.)
- ††\*Burn, J.H. Biological standardization. 2nd ed. Oxford Univ. Press. 1950.
- Burn, J.H. Practical pharmacology. Thomas. 1952.
- Caspari, Charles. A Treatise on pharmacy. 8th ed. revised by E.F. Kelly. Lea & Febiger. 1939. o.p.
- †Chute, A.H. and Hall, E.J.W. The Pharmacist in retail distribution. Austin, Texas. Hemphill. 1953.
- ††Clark, A.J. Applied pharmacology. 8th ed. revised by Andrew Wilson and H.O. Schild. Blakiston. 1952.
- \*Clark, A.J. Mode of action of drugs on cells. Williams and Wilkins. 1933. o.p.
- \*Clarkson, Ronald. Tablet coating. N.Y., Drug and Cosmetic Industry. 1951.
- \*Clayton, William. Theory of emulsions. 5th ed. by C.G. Sumner. Blakiston. 1954.
- \*Converse, P.D. and Huegy, H.W. Elements of marketing. 5th ed. Prentice-Hall. 1952. First published in 1921 under the title "Marketing methods and policies."
- \*Cooper, J.W. and Denston, T.C. Textbook of pharmacognosy. London. Pitman. 1931.
- †Crossen, G.E. and Goldner, K.J. Pharmaceutical preparations. 3rd ed. Lea and Febiger. 1952.
- \*Cushny, A.R. Pharmacology and therapeutics. 13th ed. revised by Arthur Grollman and Donald Slaughter. Lea & Febiger. 1947.
- D'Amour, F.E. and Blood, F.R. Manual for laboratory work in mammalian physiology. University of Chicago Press. 1948.



- †\*Danielli, J.F. Cell physiology and pharmacology. Elsevier. 1950.  
Daniels, Farrington. Experimental physical chemistry. 4th ed. McGraw-Hill. 1949.  
Daniels, Farrington. Outlines of physical chemistry. Wiley. 1948. Successor to "Outlines of physical chemistry" (First published in 1913 as "Outlines of theoretical chemistry") by F.H. Getman and revised by Farrington Daniels.
- †Davison, F.R. Handbook of materia medica, toxicology and pharmacology. 4th ed. Mosby. 1949.
- \*DeNavarre, M.G. Chemistry and manufacture of cosmetics. Van-Nostrand. 1941.
- †\*Eames, A.J. and McDaniel, L.H. Introduction to plant anatomy. 2nd ed. McGraw-Hill. 1947.
- \*Edwards, C.M. and Howard, W.H. Retail advertising and sales promotion. Rev. ed. Prentice-Hall. 1943.
- \*Elderfield, R.C. ed. Heterocyclic compounds. 4 vols. Wiley. 1950-1952.
- \*Esau, Katherine. Plant anatomy. Wiley. 1953.
- \*Farris, E.J. and Griffith, J.Q. The Rat in laboratory investigation. 2nd ed. Lippincott. 1949.
- \*Fieser, L.F. and Fieser, Mary. Natural products related to phenathrene. 3rd ed. of the monograph previously entitled the "Chemistry of natural products related to phenathrene," by L.F. Fieser. Reinhold. 1948.
- †Fieser, L.F. and Fieser, Mary. Organic chemistry. 2nd ed. Heath. 1950.
- \*Finney, H.A. ed. Principles of accounting. 4th ed. 2 vols. Prentice-Hall. 1951-1952. First published in 1932 under the title "Introduction to principles of accounting."
- \*Flückiger, F.A. and Hansbury, Daniel. Pharmacographia. 2nd ed. London. Macmillan. 1879. *o.p.*
- Frear, D.E.H. Chemistry of insecticides, fungicides and herbicides. 2nd ed. Van Nostrand. 1948.
- Fruton, J.S. and Simonds, Sofia. General biochemistry. Wiley. 1953.
- \*Fulton, J.F. ed. Textbook of physiology. 16th ed. Saunders. 1949.
- \*Fuson, R.C. Advanced organic chemistry. Wiley. 1950.  
Gaddum, J.H. Pharmacology. 4th ed. Oxford Univ. Press. 1953.
- ††Gathercoal, E.N. and Wirth, E.H. Pharmacognosy. 2nd ed. Lea & Febiger. 1947.
- ††\*Gilman, Henry. ed. Organic chemistry; an advanced treatise. 2nd ed. 4 vols. Wiley. 1943-1953.
- \*Gisvold, Ole and Rogers, C.H. Chemistry of plant constituents. Burgess. 1938. *o.p.*
- †Glasstone, Samuel. Textbook of physical chemistry. 2nd ed. Van Nostrand. 1946.

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- Gortner, R.A. Outlines of biochemistry. 3rd ed. edited by R.A. Gortner, Jr. and W.A. Gortner. Wiley. 1949.
- \*Gray, Asa. Manual of botany. 8th ed. edited by M.L. Fernald. American Book Co. 1950.
- \*Great Britain. General Council of Medical Education and Registration. British Pharmacopoeia. 1953.
- \*Greenish, H.G. Microscopic examination of foods and drugs. 3rd ed. London. Churchill. 1923. *o.p.*
- ††\*Grollman, Arthur. Pharmacology and therapeutics. 2nd ed. Lea & Febiger. 1954.
- †\*Guenther, Ernest. et. al. The Essential oils. 6 Vols. Van Nostrand. 1948-1952.
- †Harrow, Benjamin and Mazur, Abraham. Textbook of biochemistry. 6th ed. Saunders. 1954.
- †Hawk, P.B., Oser, B.L. and Summerson, W.H. Practical physiological chemistry. 13th ed. Blakiston. 1954.
- \*Heffter Arthur. ed. Handbuch der experimentellen pharmakologie. Berlin. Springer. 1920-
- \*Heilbron, I.S. and Bunbury, H.M. eds. Dictionary of organic chemistry. Rev. ed. London, Eyre. 1953.
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- Herrick, A.D. New drugs. Revere. 1946. *o.p.*
- Hogness, T.R. and Johnson, W.C. Qualitative analysis and chemical equilibrium. 4th ed. Holt. 1954.
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- ††\*Husa, W.J. Pharmaceutical dispensing. 4th ed. Iowa City, Iowa. Husa Bros. 1951.
- \*Index Kewensis planatarum phanerogarum; an enumeration of the genera and species of flowering plants from the time of Linnaeus to the year 1885. 2 vols. edited by J.D. Hooker and B.D. Jackson. For list of supplements by various authors, see Oxford Univ. Press catalog. Oxford. 1901-
- ††\*Jackson, D.E. Experimental pharmacology and materia medica. 2nd ed. Mosby. 1939. *o.p.*
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- \*Kamen, M.D. Radioactive tracers in biology. 2nd ed. Academic Press. 1951.

- \*Karrer, Paul. Organic chemistry. 4th ed. Elsevier. 1950.
- \*Klein, Gustav. Handbuch der pflazenanalyse. Wien, Springer. 1931-1933.
- Kleiner, I.S. Human biochemistry. 4th ed. Mosby. In Press.
- †Koltoff, I.M. and Sandell, E.B. Textbook of quantitative inorganic analysis. 3rd ed. Macmillan. 1952.
- †Kraemer, Henry. Kraemer's scientific and applied pharmacognosy. Wiley. 1928. o.p.
- ††Krantz, J.C. and Carr, C.J. Pharmacological principles of medical practice. 3rd ed. Williams & Wilkins. 1954.
- ††Kremers, Edward and Urdang, George. History of pharmacy. 2nd ed. Lippincott. 1951.
- Latimer, W.M. and Hildebrand, J.H. Reference book of inorganic chemistry. 3rd ed. Macmillan. 1951.
- LaWall, C.H. Four thousand years of pharmacy. Lippincott. 1927. o.p.
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- Lloyd, J.U. Origin and history of all of the pharmacopoeial vegetable drugs . . . Wiley. 1928. o.p.
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- ††Lyman, R.A. et al. eds. American pharmacy. 2 vols. Lippincott. (Vol. 1—Fundamental principles and practice. 3rd ed. 1951; Vol. 2—Advanced pharmacy. 1947).
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- Mansfield, William. Microscopic pharmacognosy. Wiley. 1929. o.p.
- †\*Manske, R.H.F. and Holmes, H.L. eds. The Alkaloids. Academic Press, 1950-
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- †\*Marsh, D.F. Outline of fundamental pharmacology. Thomas. 1951.
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- Mitchell, P.H. Textbook of biochemistry. McGraw-Hill. 2nd ed. 1950.
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- \*National Research Council. International critical tables. 7 vols. and index. McGraw-Hill. 1926-1933.
- ††Nolen, Herman and Maynard, H.H. Drug store management. McGraw-Hill. 1941.
- Noller, C.R. Chemistry of organic compounds. Saunders. 1951.
- Noller, C.R. Textbook of organic chemistry. Saunders. 1951.
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- ††\*Olsen, P.C. Marketing drug products. Rutgers University Press. 1948.
- †Parks, L.M., Jannke, P.J. and Harris, L.E. Inorganic chemistry in pharmacy. Lippincott. 1949.
- Pauling, L.C. General chemistry. 2nd ed. San Francisco, Freeman. 1953.
- Peterson, A.F. Pharmaceutical selling, detailing and sales training. McGraw-Hill. 1949.
- Peterson, W.H. and Strong, F.M. General biochemistry. Prentice-Hall, 1953.
- †\*Pettit, William. Manual of pharmaceutical law. Macmillan. 1949.
- \*Pincus, Gregory and Thimann, K.V. eds. The Hormones. 2 vols. Academic Press. 1948-1950.
- \*Pratt, Robertson and Dufrenoy, Jean. Antibiotics. 2nd ed. Lippincott. 1953.
- ††Pratt, Robertson and Youngken, H.W. Jr. Pharmacognosy. Lippincott. 1951.
- ††Remington, J.P. Remington's practice of pharmacy. 11th ed. by E.F. Cook and E.W. Martin. Easton, Pa. Mack Pub. Co. In Press.
- Robson, J.M. and Keele, C.A. Recent advances in pharmacology. Blakiston. 1950.
- \*Rodd, E.H. ed. Chemistry of carbon compounds. 5 vols. Elsevier. 1951-
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- Rosenberg, H.R. Chemistry and physiology of vitamins. Interscience. 1942.
- \*Rosenthaler, Leopold. Chemical investigation of plants. London. Bell. 1930. o.p.

- \*Ruddiman, E.A. and Nichols, A.B. Incompatibilities in prescriptions. 6th ed. Wiley. 1936. o.p.
- ††\*Salter, W.T. Textbook of pharmacology. Saunders. 1952.
- \*Schneider, Albert. Microanalysis of powdered vegetable drugs. Blakiston. 1921. o.p.
- \*Schwartz, A.M. and Perry, J.W. Surface active agents. Interscience. 1949.
- ††Scoville, W.L. The Art of compounding. 8th ed. by G. L. Jenkins, et. al. Blakiston. 1951.
- \*Seidell, Atherton. Solubilities of inorganic and organic compounds. 3rd ed. 2 vols. and supplement. Van Nostrand. 1949-1952.
- \*Sexton, W.A. Chemical constitution and biological activity. Van Nostrand. 1950.
- \*Shriner, R.L. and Fuson, R.C. Systematic identification of organic compounds. 3rd ed. Wiley. 1948.
- \*Silver, J.A. and Clarkson, Ronald. Manufacture of compressed tablets. N.Y., Drug and Cosmetic Industry.
- ††\*Smith, A.E. and Herrick, A.D. eds. Drug research and development. Revere. 1948.
- Snedecor, G.W. Statistical methods. 4th ed. Collegiate Press. 1948.
- ††Sollman, T.H. Manual of pharmacology. 7th ed. Saunders. 1948.
- \*Sollman, T.H. and Hanzlik, P.J. Fundamentals of experimental pharmacology. San Francisco. Stacey. 1928. o.p.
- \*Spalton, L.M. Pharmaceutical emulsions and emulsifying agents. London. Morgan. 1953.
- Stevens, A.B. Arithmetic of pharmacy. 8th ed. by C. H. Stocking and E.L. Cataline. VanNostrand. 1952.
- Sumner, J.B. and Myrbäck, Karl. eds. The Enzymes. 2 vols. Academic Press. 1950-52
- \*Thienes, C.H. Fundamentals of pharmacology. Hoeber. 1945.
- †\*Thienes, C.H. and Haley, T.J. Clinical toxicology. 2nd ed. Lea & Febiger. 1948.
- ††Trease, G.E. Textbook of pharmacognosy. 6th ed. Williams & Wilkins. 1953.
- †\*Tschirch, Alexander. Handbuch der pharmakognosie. 2nd ed. Leipzig. Tauchnitz. 1930.
- Turner, C.D. General endocrinology. Saunders. 1948. (Preliminary edition published in 1941 under title: "An introduction to general endocrinology.")
- Von Oettingen, Wolfgang. Poisoning. Hoeber. 1952.
- \*Wallis, T.E. Practical pharmacognosy. 5th ed. London. Churchill. 1948.
- Wallis, T.E. Textbook of pharmacognosy. London. Churchill. 1946. o.p.
- \*Wehmer, Carl. Die Pflanzenstoffe. Jena, Fischer. 2nd ed. vol. 1, 1929, vol. 2, 1931. Supplement. 1935.

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- †Weissberger, Arnold. ed. *Technique of organic chemistry*. 8 vols. Interscience. 1949-1953.
- Wertheim, Edgar. *Textbook of organic chemistry*. 3rd ed. Blakiston. 1951.
- West, E.S. and Todd, W.R. *Textbook of biochemistry*. 2nd ed. Macmillan. 1955.
- Willard, H.H., Merritt, L.L. and Dean, J.A. *Instrumental methods of analysis*. 2nd ed. Van Nostrand. 1951.
- ††Wilson, C.O. and Gisvold, Ole. eds. *Textbook of organic medicinal and pharmaceutical chemistry*. 2nd ed. Lippincott. 1954. Formerly published as "Organic Chemistry in pharmacy." 1949.
- Winton, A.L. and Winton, K.G.B. *Structure and composition of foods*. 3 vols. Wiley. 1932-1937.
- \*Woolley, D.W. *A Study of antimetabolites*. Wiley. 1952.
- \*Work, T.S. and Work, Elizabeth. *Basis of chemotherapy*. Interscience. 1948.
- ††Youngken, H.W. *Textbook of pharmaceutical botany*. 7th ed. Blakiston. 1951.
- ††Youngken, H.W. *Textbook of pharmacognosy*. 6th ed. Blakiston. 1948.

### PERIODICAL LITERATURE

The titles included in this list represent the pooled opinions of all members of the teaching staff and all the librarians who participated in the survey. The lists were compiled in the manner stated in the Introduction. Titles are arranged according to their entry in the *Union List of Serials* and new titles have been checked in *New Serial Titles*.

- ††A.M.A. *Archives of dermatology*. 1920.
- †Acta pharmacologica et toxicologica. 1945.
- †Acta physiologica et pharmacologica Neerlandica. 1950.
- Advances in enzymology and related subjects of biochemistry. Interscience. 1941.
- ††American Chemical Society. *Journal*. 1879.
- American Dental Association. *Journal*. 1913.
- ††American druggist. 1871.
- †American journal of botany. 1914.
- ††American journal of pharmaceutical education. 1937.
- ††American journal of pharmacy and the sciences supporting public health. 1829.
- †American journal of physiology. 1898.
- American journal of public health and the nation's health. 1911.
- American journal of the medical sciences. 1827.
- ††American Medical Association *Journal*. 1883.
- ††American perfumer and essential oil review. 1906.
- ††American Pharmaceutical Association. *Journal*. 1912-1939.

- ††American Pharmaceutical Association. Journal. Practical pharmacy edition. 1940.
- ††American Pharmaceutical Association. Journal. Scientific edition 1940.
- American Pharmaceutical Association. Yearbook. 1912-1934.
- American Pharmaceutical Association. National Formulary Committee. Bulletin. 1930-1950. See Drug standards.
- †American professional pharmacist. 1935.
- American scientist; the Sigma Xi quarterly. 1913.
- ††American Society of Hospital Pharmacists. Bulletin. 1943.
- American Veterinary Medical Association. Journal. 1877.
- ††Analytical chemistry. 1947. (Continuation of Industrial and Engineering Chemistry. Analytical edition.)
- Analyst. 1877.
- Annales pharmaceutiques Françaises. 1943.
- ††Annual review of biochemistry. 1932.
- Annual review of microbiology. 1947.
- †Annual review of physiology. 1939.
- Annual review of plant physiology. 1950.
- ††Antibiotics and chemotherapy. 1951.
- †Archiv der Pharmazie und Berichte der Deutschen pharmazeutischen Gesellschaft. 1822.
- †Archives internationales de pharmacodynamie et de thérapie. 1894.
- Archives of biochemistry and biophysics. 1942.
- Arzneimittel-Forschung. 1951.
- ††Association of Official Agricultural Chemists. Journal. 1915.
- Australasian journal of pharmacy. 1885.
- Bacteriological reviews. 1937.
- ††Biochemical journal. 1906.
- ††Biological abstracts. 1926.
- Botanical gazette. 1875.
- Botanical review. 1935.
- British medical journal. 1857.
- ††British journal of pharmacology and chemotherapy. 1946.
- Business week. 1929.
- Canadian pharmaceutical journal. 1868.
- †Chain store age. Drug executive's edition. 1928.
- ††Chemical abstracts. 1907.
- †Chemical and Engineering news. 1942. (Continuation of Industrial and engineering chemistry. News edition.)
- ††Chemical reviews. 1924.
- ††Chemical Society, London. Journal. 1847.
- †Chemische Berichte. 1868.
- Chemische Zentralblatt. 1830.
- †Chemist and druggist. 1859.
- Chemurgie digest. 1942.
- Current list of medical literature. 1941.



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- Current researches in anesthesia and analgesia. 1922.  
Current Therapy. Saunders. 1949.  
†Drug and allied industries. 1915.  
††Drug and cosmetic industry. 1926.  
Drug and cosmetic review. 1932.  
††Drug standards. 1951. (Continuation of American Pharmaceutical Association. National Formulary Committee. Bulletin.)  
††Drug topics. 1883.  
††Drug trade news. 1925.  
††Economic botany. 1947.  
†Endocrinology. 1917.  
Excerpta medica. Section II. Physiology, biochemistry, pharmacology. 1948.  
Experientia, monatsschrift für das gesamte gebiet der naturwissenschaft. 1945.  
†Federation of American Societies for Experimental biology. Baltimore. Federation proceedings. 1942.  
†Food, drug and cosmetic law journal. 1946.  
Fortune. 1930.  
FDC drug letter. 1951.  
Harvard business review. 1922.  
†Helvetica chimica acta. 1918.  
†Industrial and engineering chemistry. 1909.  
Industrial and engineering chemistry. Analytical edition. 1929-1946 see Analytical chemistry.  
Industrial and engineering chemistry. News edition. 1923-1941 see Chemical and engineering news.  
Journal of allergy. 1929.  
Journal of agricultural and food chemistry. 1953.  
†Journal of bacteriology. 1916.  
††Journal of biological chemistry. 1905.  
†Journal of chemical education. 1924.  
Journal of clinical investigation. 1924.  
Journal of experimental medicine. 1896.  
Journal of immunology, virus research and experimental chemotherapy. 1916.  
Journal of industrial hygiene and toxicology. 1919.  
†Journal of laboratory and clinical medicine. 1915.  
††Journal of organic chemistry. 1936.  
††Journal of pharmacology and experimental therapeutics. 1909.  
††Journal of pharmacy and pharmacology. 1949. (Supersedes Quarterly journal of pharmacy and pharmacology.)  
Journal of physical chemistry. 1896.  
Journal of physiology. 1879.  
†Justus Liebig's Annalen der Chemie. 1832.  
†Lancet. 1823.  
†Manufacturing chemist. 1930.

- Medicinal chemistry. Wiley. 1951.  
 Methods in medical research. Year Book Publishing Co. 1948.  
 ††National Association of Retail Druggists. Journal. 1902.  
 Nation's Business. 1912.  
 †Nature (London). 1869.  
 †Naunyn-Schmiedeberg's Archiv für experimentelle Pathologie und Pharmacologie. 1873.  
 New York Academy of Sciences. Annals. 1877.  
 ††Oil, paint and drug reporter. 1871.  
 †Organic reactions. Wiley. 1942.  
 †Organic syntheses. Wiley. 1921.  
 Perfumery and essential oil record. 1910.  
 ††Pharmaceutical abstracts. 1935-1948.  
 ††Pharmaceutica acta Helvetiae. 1926.  
 ††Pharmaceutical journal (London). 1841.  
 ††Pharmacological reviews. 1949.  
 Pharmazeutische zentralhalle für Deutschland. 1859.  
 Pharmazie. 1946.  
 ††Physiological reviews. 1921.  
 †Plant physiology. 1926.  
 †Public health reports. 1878.  
 Quarterly cumulative index medicus. 1927.  
 Quarterly journal of pharmacy and pharmacology. 1928-1948.  
 (Superseded by Journal of pharmacy and pharmacology.)  
 Recent progress in hormone research. Academic Press. 1947.  
 Sales management. 1918.  
 ††Science. 1883.  
 Science news-letter. 1921.  
 Scientia pharmaceutica. 1930.  
 Scientific American. 1845.  
 Scientific monthly. 1915.  
 Soap and chemical specialties. 1925.  
 Soap, perfumery and cosmetics. 1928.  
 Societe de Biologie, Paris. Comptes rendus. 1849.  
 ††Society for experimental biology and medicine. Proceedings. 1903.  
 United States Dept. of Agriculture. Yearbook. 1894.  
 Vitamins and hormones. Academic Press. 1943.  
 Yearbook of drug therapy. Yearbook Publishing Co. 1933.

**Mr. George Bugbee**, President of Health Information Foundation, speaking recently in Indianapolis before the Butler University Seminar on Pharmacy, said: "Pharmacists, chemists, and industrialists concerned with the manufacture of drugs and the many categories of pharmaceutical personnel may take great pride in their accomplishments. The nation's hopes are inextricably bound to what their work may do to conquer the viruses, arrest or eradicate cancer, and control the degenerative diseases of old age."

## **Annual Report of the American Council on Pharmaceutical Education, Inc.**

**P. H. COSTELLO, Secretary**

The following constitutes the twenty-third annual report of the American Council on Pharmaceutical Education, Inc., to its sponsoring organizations, the American Pharmaceutical Association, the National Association of Boards of Pharmacy and the American Association of Colleges of Pharmacy. It covers the period from August 24, 1954 to May 1, 1955, less than the usual 12-month period.

### **The Council and Board of Directors**

**Membership:** The Council is composed of ten members who also constitute the Board of Directors. Each of the three sponsoring organizations appoints three representatives to serve as members of the Council, and the American Council on Education appoints one representative to serve as a member. The present membership of the Council is as follows:

	<b>Term Expires</b>
Representing the American Pharmaceutical Association:	
George D. Beal, Pittsburgh, Pa.	1956
Robert P. Fischelis, Washington, D.C.	1958
L. L. Riggs, Portland, Oregon	1960
Representing the American Association of Colleges of Pharmacy:	
B. V. Christensen, Columbus, Ohio	1956
Hugo H. Schaefer, Brooklyn, New York	1958
Thomas D. Rowe, Ann Arbor, Michigan	1960
Representing the National Association of Boards of Pharmacy:	
P. H. Costello, Chicago, Illinois	1956
Frank W. Moudry, St. Paul, Minnesota	1958
Robert L. Swain, New York City, New York	1960
Representing the American Council on Education:	
Edward C. Elliott, Lafayette, Indiana	1960

**Changes in Membership:** Dean Thomas D. Rowe of the University of Michigan was appointed by the American Association of Colleges of Pharmacy for a regular six year appointment. The American Pharmaceutical Association appointed Mr. Leib L. Riggs of Portland, Oregon to succeed Mr. Bracken who was deceased shortly after being reappointed for a 6-year term.

**Executive Officers of the Council:** At the annual meeting of the Board of Directors held in Chicago, Illinois, on January 19-21, 1955, George D. Beal, B. V. Christensen, and P. H. Costello were elected to serve respectively as President, Vice President and Secretary-Treasurer for the ensuing year.

**Director of Educational Relations:** Dr. Melvin W. Green who has served as Director of Educational Relations since September 1, 1952, will continue to serve in that capacity during the ensuing year.

**Meetings:** The Council held only one meeting during the period covered by this report. The Annual Meeting, preceded by the regular annual meeting of the Corporation, occurred on January 19-21, 1955. This meeting, which was held at the Palmer House, Chicago, Illinois, included a joint meeting with the Executive Committee of the American Association of Colleges of Pharmacy.

**Examination of Colleges:** During the period covered by this report, 22 of the 74 accredited colleges were examined for the purpose of continuation of accreditation or reclassification. In addition several informal visits were made to colleges of pharmacy either at the request of the college or for informal advisement. It is the opinion of the Council that this service can be of substantial assistance to the colleges by bringing experience and information to the college in a more leisurely fashion. The Director of Educational Relations participated in all visits and examinations but one. At Formal examinations, the Director, at least one member of the state Board of Pharmacy and one Council member usually participated. Council members participated as follows: Dr. Christensen in 1, Dr. Fischelis in 5, Dr. Schaefer

in 3, Dr. Beal in 1, Dr. Costello in 1, Dr. Rowe in 5, Dr. Elliott in 1 and Mr. Riggs in 3. Every college which requested examination during this academic year was visited.

In addition to the examinations and visitations, each college filed an annual progress report with the Council. The report is filed each year before November 1 and represents changes during the previous academic year. This report to the sponsoring organizations as to the status of the colleges represents, consequently, the situation during the academic year 1953-54 supplemented by findings upon examination during 1954-55 up to May 1 and, sometimes, correspondence and other material.

Because of the shortness of the year due to the changed convention time, the resume of progress in institutions is curtailed this year. The following represents a brief summary of the situation:

**Physical Plant:** Three colleges have moved into new buildings during the year. In addition 8 colleges are at some stage of planning for new buildings. Three schools are occupying new wings or other added space in older buildings. Four schools have definite plans for providing more space soon.

**Staff:** A number of staff members were granted leaves of absence for further graduate education and a number received the Ph.D. during the year. There were 37 full-time staff members and 5 part-time staff members reported as resigned, retired, or deceased. Some of those who resigned are still in teaching at other colleges. There were 66 full-time and 7 part-time teachers hired during the year. The collective staff reported the publication of 351 papers, books and sections of books making an average of 4.7 per school. Seventeen schools reported no publications, 17 schools reported 1 to 5 publications 15 schools reported 6 to 10 publications, 10 schools reported 11 to 20 publications and 6 schools reported more than 20 publications, the maximum being 30. Several schools received outside research grants during the year.

**In-Service Programs:** In-service seminars for practitioners were reported by 23 schools. In addition 4 schools reported participation in radio and television programs.

**Miscellaneous:** Two new chapters of Rho Chi, honorary pharmacy fraternity, were established during the year. A number of schools emphasized student recruitment during the year. One school changed from the quarter system to the semester system. One school reported the formation of an alumni research foundation.

**Extended Programs:** During the year two colleges inaugurated a 5-year program and several announced intentions of so doing. Council representatives were gratified to note the number of institutions visited during the year that were laying plans for such a program. It is the sense of the Council that problems relating to the extended program are sufficiently complex in most institutions that it is necessary to begin intensive study of them now so that the best possible programs can be put into effect by 1960. The diligence with which institutions prepare for a quality program will be considered by the Council to be the significant measure of an institution's progressiveness rather than the selection of an early date to put the program into effect.

**Joint Examinations with Regional Agencies:** During the academic year 1954-55, the Council participated in examinations of schools of pharmacy simultaneously with the examination of institutions as a whole by regional accrediting agencies. Four institutions were examined concurrently with an institution-wide accreditation by the Middle States Association. One such examination took place in cooperation with the Northwest Association. At two examinations observers from the Northwest Association were present. In one case, a representative of the North Central Association was a part of the examining team as a generalist, in conformity with the new policy of this regional association.

**Published List of Accredited Colleges:** The latest listing of accredited colleges (July 1, 1954) contains the names of seventy-four Accredited Colleges of Pharmacy and was un-

changed at the January meeting of the Council. Sixty-eight of these colleges are designated as Class A, 2 as Class B, 3 as Class C, and 1 as Unclassified.

**Distribution of Lists of Accredited Colleges:** There has been a notable increase in the number of lists of accredited Colleges of Pharmacy distributed this past year. A notice of the availability of the list was published in *Career Index*, a publication for high school counselors. As a result, the Council office has sent lists to 750 different high schools. Science Research Associates requested 1000 copies for distribution in vocational guidance kits. The University of the State of New York distributed 1300 in conjunction with their own mailings to career counselors. In addition, about 300 lists were sent on request of individuals and over 200 were sent to persons on the usual Council mailing list. Over 3000 lists were distributed during the period covered by this report.

**Special Project:** As a special project this year, the Council undertook to ascertain and tabulate graduate programs in force at various accredited schools. The table attached to this report summarizes the findings of this survey.

**Financial Statement:** A financial statement for the last calendar (fiscal) year, January 1, 1954 to December 31, 1954 follows:

January 1, 1954—cash balance on hand		\$ 2,826.69
RECEIPTS:		
Sponsors' contributions	\$ 3,000.00	
American Foundation for Pharmaceutical Education	25,000.00	28,000.00
		<hr/>
		\$30,826.69
DISBURSEMENTS:		
Rent and light	1,000.00	
Salaries	15,539.96	
Council meetings	2,015.88	
Inspection expense	4,290.80	
Printing	241.70	
Office supplies and equipment	1,625.75	
Postage, telephone, telegraph, express	421.13	
Miscellaneous, bonds, dues, etc.	397.80	25,533.02
		<hr/>
Cash balance on hand, Dec. 31, 1954		\$ 5,293.67



GRADUATE PROGRAMS IN PHARMACY AS OF JANUARY 1955

SCHOOL	PHARMACY			PHARM. CHEM.			PHARMA- <sup>b</sup> COLOGY			PHARMA- COGNOSY			PHARM. ADMIN.			HOSPITAL <sup>c</sup> PHARMACY		
	MS	PhD	Minor <sup>a</sup>	MS	PhD	Minor <sup>a</sup>	MS	PhD	Minor <sup>a</sup>	MS	PhD	Minor <sup>a</sup>	MS	PhD	Minor <sup>a</sup>	MS	PhD	Minor <sup>a</sup>
Ala. Polytech.	X			X			P			X								X
Howard College												X						
U. Arizona	X			X			P			X						X		
U. California				X	X		M	M								X <sup>i</sup>		
U. So. Calif.	X	X		X	X		P	P		X	X							X
U. Colorado	X	X		X	X		M	M	P									
U. Connecticut	X	X		X	X		P	P		X	X					XIG		
U. Florida	X	X		X	X		P	P		X	X							
U. Georgia			X	X	X				P									
U. Illinois	X			X	X		MP <sup>m</sup>	MP <sup>m</sup>		X	X					XIG <sup>d</sup>		
Butler U.	X			X	X		P											
Purdue U.	X	X		X	X		P	P		X	X		X	X				
Drake U.							P											
State U. Iowa	X	X		X	X		M	M				X				XI <sup>d</sup>		
U. Kansas	X			X	X		P			X								
U. Maryland	X	X		X	X		P	P		X						XIG <sup>n</sup>		
Mass. C. of P.	X	X		X	X		P			X	X				X	XIG		
U. Michigan	X	X		X	X		M	M								XIG		
Wayne U.				X	X					X								
U. Minnesota				X	X					X	X							
U. Mississippi	X			X			M											
St. Louis ColP.	X <sup>c</sup>																	
U. Kansas City	X			X			P	P		X								
Montana St. U.	X																	
U. Nebraska	X	X		X	X		P	P	P	X	X					XIG		
Rutgers U.				X														
Columbia U.	X			X			MP <sup>m</sup>			X								
Fordham U.			X			X			X			X				X		X
U. Buffalo	X			X	X			M								XI		
U. No. Carolina	X	X		X	X		M		X	X	X							
No. Dakota	X					X	P	P		X	X				X			
Ohio State U.	X	X		X	X		P	P		X	X							
U. Oklahoma	X			X			P	P		X								
Oregon St. Coll.	X	X		X	X		P	P		X	X							
Duquesne U.	X			X			P			X								
Phila. C. of P.&S.	X	X <sup>b</sup>		X	X <sup>b</sup>		P	Ph				X				XIG		
Temple U.	X			X			P											
U. Pittsburgh	X	X					P			X			X	X				
Med. C. S.Car.							M	M										
So. Dak. St. Col.	X			X			P			X								
U. Tennessee							X <sup>k</sup>	X <sup>k</sup>		X						X		XIG
U. Houston				X	X		P	P		X	X					XIG		
U. Texas	X	X		X	X		P	P		X	X					XIG		
U. Utah	X	X		X	X		P	P		X	X				X			
Med. Coll. Va.							MP <sup>m</sup>	MP <sup>m</sup>										
St. Coll. Wash.	X	X		X	X		P	P		X	X					XIG		
U. Washington	X	X		X	X					X	X		X	X				
U. Wisconsin	X <sup>i</sup>	X <sup>i</sup>		X			M	M		X	X					X		
U. Wyoming			X			X			P									

KEY

- No major given, but students may minor in this field.
- M = in school of medicine; P = in school of pharmacy.
- I = internship program; G = degree granted through graduate school.
- Programs given with and without internship.
- Degree given in industrial pharmacy.
- No Ph.D., but D.Sc. given.
- Given in school of biological sciences.
- Also give degrees in history of pharmacy.
- Degree given jointly in pharmacy and medicine.
- Degree in pharmacy; internship at Johns Hopkins.
- Master of Pharmacy with major in hospital pharmacy.

## **Reports of Officers, Committees and Delegates of the American Association of Colleges of Pharmacy at the 1955 Meeting in Miami Beach, Florida\***

### **Interim Report of the Secretary-Treasurer, Eight Months, from August 1, 1954 to March 31, 1955**

This eight-months interim report will consist chiefly of the financial statement for the period August 1, 1954 to March 31, 1955. The statement has not been checked by the commercial auditors; their audit will be made following the close of the current fiscal year. The interim statement, however, has been checked against original records by the Auditing Committee, whose report will be presented on Tuesday afternoon.

Minutes of the annual meeting of the Executive Committee and for the post-session meeting, 1954, were distributed to members of the Executive Committee and to the Deans of member colleges last fall, and were published in the October number of the Journal. Those of the interim meeting of January 19-21 were distributed by mail and will be published in the Spring number of the Journal.

Seven hundred examination copies of the second edition of *Shall I Study Pharmacy* together with a prospectus on the brochure were mailed to Deans, State and National Guidance Officers, Board Secretaries, Association Secretaries and others. Three mailings of PRxChange, sponsored by the AACP-ACPRA Joint Committee on Public Relations, 175 each mailing, were made. Reprints of "Tools for Pharmacy College Librarianship," by M. Margaret Kehl, were distributed to Librarians in member colleges, with a letter of transmittal from the Chairman of the Joint Committee on Pharmacy College Libraries.

\*It is impossible to print all the reports in this number because of lack of space. Those held over will appear in the Fall issue now in preparation.—Ed.

Complete revision of the distribution list of the Journal, to obtain the most up-to-date addresses available, a rather time-consuming task, is in process and should be completed so a thoroughly revised distribution list will be available January 1, 1956. Working with the Secretary of the American Council on Pharmaceutical Education, we are also in process of revising the Personnel Roster started by our Committee on Personnel Problems in 1953. Your cooperation is earnestly solicited in the event you are asked this Fall to verify our records on your college.

Since August first, the Secretary has represented the Association directly or indirectly on several occasions, and this has necessitated five trips to New York City, three to Detroit, two to Chicago, two to Florida and two to Indianapolis.

Other duties of the Secretary-Treasurer have included a large volume of routine and special correspondence; supervision of revision, publication, and distribution of the brochure (revision has since been placed under the capable direction of another member of the Subcommittee on Recruitment Aids, Dr. Donald Brodie); serving as business manager of the Journal; and helping plan the audiovisual aids being developed to supplement *Shall I Study Pharmacy*.

The financial statement for the eight months ended March 31, 1955, has been placed in your hands. Two or three significant changes will alter it appreciably between now and the end of the current fiscal year. It does not, as is customary, include the financial statement of the Conference of Teachers and its Council. This statement has been reported to the Executive Committee by the Secretary-Treasurer of the Council on Conference of Teachers.

R. A. DENO, *Secretary-Treasurer*

American Association  
of College of Pharmacy  
Summary of Funds  
Eight Months Ending March 31, 1955

**General Fund**

Balance, August 1, 1954:		
Cash in bank.....	\$11,295.45	
U. S. Savings Bonds.....	6,000.00	\$17,295.45
		<hr/>
Receipts (Schedule attached).....		51,553.80
Transfer—Seminar Fund .....		7,856.59
		<hr/>
Total .....		\$76,705.84
Disbursements (Schedule attached).....		28,687.10
		<hr/>
Balance, March 31, 1955.....		<u>\$48,018.74</u>

**Fund for the Study of Pharmacy**

Balance, August 1, 1954:		
Cash in bank.....	629.99	
U. S. Savings Bonds.....	3,500.00	4,129.99
		<hr/>
Receipts:		
Interest on savings.....		6.29
		<hr/>
Balance, March 31, 1955.....		<u>\$ 4,136.28</u>

**Seminar Fund**

Balance, August 1, 1954:		
Cash in bank.....		\$ 7,856.59
Transfer to General Fund.....		7,856.59
		<hr/>
Balance, March 31, 1955.....		<u>-0-</u>

**Summary of Fund Balances**

**March 31, 1955**

General Fund:		
Ann Arbor Bank —comml. acct.....	\$42,018.74	
U. S. Savings Bonds—Series K.....	6,000.00	\$48,018.74
		<hr/>
Fund for the Study of Pharmacy:		
1st Nat. Bank, Iowa City—savings.....	636.28	
U. S. Savings Bonds—Series K.....	3,500.00	4,136.28
		<hr/>
Total—All Funds.....		<u>\$52,155.02</u>

**Statement of Receipts and Disbursements  
Eight Months Ended March 31, 1955**

Receipts:

Dues—76 member colleges.....	\$15,200.00
Journal subscriptions.....	1,093.60
Grants, Amer. Found. for Pharm. Educ.:	
Journal .....	\$ 5,000.00
Seminar .....	7,000.00
Recruitment Aids .....	20,000.00
Interest .....	216.90
Brochure—"Shall I Study Pharmacy".....	3,004.30
Miscellaneous .....	39.00
<b>Total .....</b>	<b>\$51,553.80</b>

Disbursements:

Annual meeting .....	1,450.70
Interim meeting—Executive Committee...	1,142.09
Repr. and deleg. expenses.....	1,209.44
Dues and allotments.....	1,516.50
Salaries, honoraria, soc. sec., bond., audit..	2,183.53
Journal .....	4,303.68
Brochure and recruit. aids.....	7,431.60
Committees .....	1,152.87
Seminar .....	7,063.34
Stat. and office expenses.....	710.98
Post., telephone and telegrams.....	500.52
Miscellaneous .....	21.85
<b>Total .....</b>	<b>\$28,687.10</b>

## **Report of the Chairman of the Executive Committee**

The Minutes of the Executive Committee meeting held in Boston have been published in the pages of the Journal and the Minutes of the Interim Meeting held at the Palmer House in Chicago on January 19-21, 1955, were distributed by mail to all member colleges by Secretary-Treasurer Deno.

One-half day of the Interim Meeting was devoted to a joint session with the American Council on Pharmaceutical Education. Copies of these minutes have also been distributed

and will be printed in the next edition of the Journal. The Executive Committee is of the opinion that a great deal of good will result through continuation of these joint sessions. It affords an opportunity for the Council and the Executive Committee to exchange ideas and to discuss programs of significance to all member colleges.

#### Council Standards

A report by Dr. Green entitled "Is There a Need for Change in Standards and Procedures of the Council" was among the items considered at the joint session in January. Dr. Elliott reminded us that the objective of the standards was to assure the continued growth of the colleges until all were eventually at least a minimal "A", and then devise ways and means of stimulating growth among the "A" colleges. There was general endorsement of the proposal that the schools be encouraged to make an annual or biannual study of specific phases of their program, with a view toward stimulating the growth among the "A" colleges.

The desirability of more rigid enforcement of existing standards was emphasized, and it was suggested by the Council that they would welcome specific recommendations from our Association on elevation of standards to be applied by the Council. Here, now, is the opportunity for the colleges to make recommendations for consideration by the Council in review of their standards. It would be desirable that these recommendations pass through the Executive Committee for their consideration and information, since it is their responsibility to discuss the details of such changes with the Council.

Since a major objective of the college Association is to help its members, the Executive Committee, following discussion with the Council, instructed the Chairman to contact those member colleges holding a classification other than "A", and to offer whatever assistance possible. Our Executive Committee can obtain complete reports of the colleges only if the college involved authorizes such release. In order to be of the greatest assistance, the Executive Committee requested the Council to advise us of any college which they place on their

critical list. Only in this manner can we be of constructive assistance.

### **Graduate Program**

The importance of a review and complete study on graduate education programs in our colleges of pharmacy was discussed at considerable length. Because no conclusions were reached, the matter was referred to the Executive Committee of this Association for further study. It is apparent that our own and other colleges who are charged with the responsibility of directing students in graduate work, and who advise students in their selection, should have a more complete picture of the type of graduate study programs available. An assignment of this kind may properly belong in the province of our Committee on Graduate Instruction, and the Executive Committee is studying methods of implementation.

### **Present Membership**

By election of the Florida Agricultural and Mechanical University School of Pharmacy, Tallahassee, Florida, to associate membership, at the Boston meeting, we now have a total membership of 76 colleges.

### **Enrollment Data**

According to reports submitted to the Chairman of the Executive Committee, the total undergraduate enrollment for the first semester term or quarter of 1954-55 in all colleges, member and non-member, in the continental United States was 15,782. The 4,183 freshmen enrolled in our Colleges of Pharmacy last year is the largest number of students to enter pharmacy since the fall of 1950, and represents an increase of 8.1% over last year's entering class. Graduate enrollment was at its peak, with the total figure of 612.

The form used in collecting enrollment data this year provided for information regarding the admission qualification of all new students. You were requested to indicate the number of students entering directly from high school and those admitted with previous college credit. Your Chairman is not completely satisfied that the data requested on this



form were correctly interpreted; however, information supplied indicates that 3,158 students were admitted on the basis of their high school record only, while a total of 2,055 were admitted with previous college credits.

#### **Report of Admissions and Degrees Conferred In Spring Enrollment**

Because of the early meeting this year, the data for admissions, degrees conferred, etc., as provided in Section 8 of Article I of the By-Laws, is not available. Collection of this material is in process and will subsequently be reported in the pages of the Journal.

#### **Teachers' Seminar**

Each school has received notice that the Seventh Annual Teachers' Seminar, sponsored by our Association and supported through financial aid of the American Council for Pharmaceutical Education, is to be held at Butler University College of Pharmacy, Indianapolis, August 7-12.

Following the recommendations made at the open forum discussion on seminars last year, it was agreed to repeat the course cycle; therefore, pharmacy will be the subject for consideration at Indianapolis. The program is designed after the pattern set by the Teachers' Seminar on Pharmaceutical Education so successfully held at the University of Connecticut School of Pharmacy last year. The morning programs will be limited to formal presentations by experts in the field of general education and specialists in the field of pharmaceutical education. The afternoon workshop sessions are being arranged in a manner to stimulate thorough and complete discussion of the various areas of this specialization. Hospital Pharmacy, Hospital Pharmacy Administration, Manufacturing Pharmacy, Physical Pharmacy, as well as Ethics and Professional Relations, will each be assigned an opportunity for concentrated workshop periods. A resume from each of the workshops will be given at a general assembly scheduled for the latter part of each afternoon. This will give an opportunity for those who participated in the different sections to learn

about the discussions which have taken place in the other conferences.

A special program is being arranged for the discussion of graduate study in pharmacy for Friday.

#### **Pharmacists In Government Service**

A report from our representative to the Committee on Status of Pharmacists in Government Service, Dr. Robert L. Van Horne, will be presented at the time of committee reports. The reactivation of this most important committee is encouraging, and each of us should give special attention to the recommendations and activities of the committee. This is an area from which considerable criticism arises, and I encourage you to give their report careful consideration.

#### **District Meetings**

Meetings of the Boards and Colleges were held in District No. 6 on January 31-February 1, at New Orleans, Louisiana; in District No. 5 on February 14-15 at Minneapolis, Minnesota; in District No. 1 on March 7-8 at Boston, Massachusetts; and in District No. 4 on March 13-15 at Indianapolis, Indiana. President Burt represented the Association at District No. 6; Chairman Zopf at District No. 1; and President-Elect Tice at both District No. 4 and 5.

Future curriculum patterns, course sequence and content, pharmaceutical laws—their interpretation and enforcement, and current state pharmacy acts all were subjects of discussion.

#### **Area of Operation for the American Foundation for Pharmaceutical Education**

The American Foundation for Pharmaceutical Education is an important organization. It is our most powerful ally. The Foundation is designed to help pharmaceutical education. To be of the greatest service, they must understand our problems. Our Association has five representatives on the Board of Directors. Their interests are our interests, and your ideas should be conveyed to the representatives for implementation. The Foundation supports the American Journal for Pharma-

ceutical Education; it gives financial aid to graduate students; encourages and contributes to undergraduate scholarships; and indirectly assists all colleges and staff members through support of our teachers' seminars. Now, financial aid has been assured for the implementation of an extensive quality recruitment aids program. Let us remember that only by this financial assistance are such Association programs possible.

It is the future, therefore, that we must consider. Wherein lies our greatest need? Constructive ideas are needed, and your suggestions should be conveyed to our Foundation representatives so ideas can be consolidated, clarified, and presented for possible implementation.

#### **Status of Recruitment Aids Committee**

The responsibility of the Committee on Recruitment Aid is now designed to cover problems of all publications and other materials of public relations' nature. The important functions of this Committee and the associated financial responsibility favor naming the Committee on Recruitment Aids to one of permanent tenure in the Association.

#### **Brochure, "Shall I Study Pharmacy"**

The 70,000 copies of the first edition of our brochure, "Shall I Study Pharmacy", have, as you have learned, been exhausted, and the second edition is in distribution. The general acceptance of the brochure has been most gratifying, and the Committee desires that succeeding editions be equally well received. If you have suggestions and criticisms, will you please send such information to Dr. Donald C. Brodie at the University of California, or to either the Chairman of the Executive Committee or Secretary-Treasurer Deno? Your suggestions will be conveyed to the special Committee on Recruitment Aids for their guidance during the revision of the next edition.

#### **Responsibility of the Individual College**

The anticipated rush to colleges in 1960-70 is a certainty. The effect on enrollment in the colleges of pharmacy is subject of debate. It is the general consensus that pharmacy will

have a gradual increase, and that this increase may overtax the physical facilities and teaching personnel of some of our colleges. If our present membership is not prepared to handle the increased enrollment, it will result in the establishment of new colleges of pharmacy. As pharmaceutical educators we must look ahead and consider the factors which most directly affect the number of students who apply for pharmaceutical education. Our increased educational requirements should encourage quality students to seek admission to our colleges, and thus through greater selection, strengthen the profession. No attempt is intended at exclusion of new colleges of pharmacy, but the challenge exists with us. Will we be prepared to meet it?

#### Future of the Journal

'Tis said a profession is no stronger than its literature. This Association is proud of the *American Journal of Pharmaceutical Education*. We owe much to our predecessors, for their foresight and the fearlessness with which they approached a problem of such magnitude at a time when funds were even more limited than they would appear today. The problems of the Journal during the past eighteen years have weighed heavily on the Publications Committee, the Executive Committee, and the Association; but to none of us can the Journal mean more than to one of the great leaders in pharmaceutical education, our editor — Dr. R. A. Lyman. I can scarcely conceive any man who has given so unselfishly of himself than has our editor. It is with regret that the Executive Committee announced in the Minutes of the Interim Meeting that Dr. Lyman will relinquish the editorial chair as soon as a satisfactory successor is found. Our Journal is most respectfully referred to among our associates as "Lyman's Journal". His successor will have a terrific challenge, a colossal assignment, a huge pair of shoes to fill. Dr. Lyman has dedicated himself to the Journal, and I am certain his successor will continue to seek his counsel and guidance.

The Executive Committee yesterday, after reviewing the names of eighteen possible candidates, elected Dr. Melvin R.

Gibson, of the State College of Washington, School of Pharmacy, Pullman, Washington, as Editor of the *American Journal of Pharmaceutical Education* effective January 1, 1956.

#### **The Report of the Subcommittee on Extension Education**

A subcommittee of the Executive Committee, composed of Dean Roy Bowers, Dean L. David Hiner, and Dr. John Christian has made a thorough study of possible sources of funds for continuing our extension educational programs for pharmacy. At the moment, no funds are available but the report is so informative that the Executive Committee has decided it should be published in its entirety in the Journal.

This is not a closed matter. The Executive Committee will continue to follow the progress of the proposed federal legislation as sponsored by the National University Extension Association and any other organizations that may sponsor such legislation."

#### **Proposed Changes In the Constitution and By-Laws**

Under date of March 9, 1955, each member college received a memorandum from the Chairman's office which included the recommended changes in the Constitution and By-Laws as approved by our special committee on this assignment. The details of the recommended changes are well known, and copies of the report will be made available to you at this meeting prior to the request for vote. Briefly stated, they refer to Article VII of the Constitution and provide for a position of dignity for the officer holding the title Vice-President. The proposal deletes the office of President-Elect as such title and automatically places the Vice-President in position where he will succeed to the office of President. The recommendations in regard to Article VIII change the membership of the Executive Committee to provide for a chair for the Vice-President. This does not increase the number of representatives on the Executive Committee, but replaces the chair of the President-Elect with that of the Vice-President.

#### **Special Committee on Administrative Procedures**

The Executive Committee has received recommendations from the Special Committee on Administrative Procedures

outlining the duties of the officers of the Association. It is doubtful that the individual membership appreciates the size of this assignment. Our Association will benefit greatly from the recommendations and definitions which were made. Their report will insure complete instruction for all future officers and committees, enabling them in their short term of office to give the best for the Association. They will understand their duties, responsibilities and obligations. We owe a special vote of thanks to Dr. George L. Webster for his thoroughness in guiding this assignment to its termination.

#### **A Long Range Plan for the Association**

In a smaller organization it is relatively easy to allocate assignments to individual members. However, as the membership increases, many of these responsibilities are best handled as committee assignments. Greater number of member colleges mean more progressive ideas, greater demands, and a better opportunity for more considered judgement.

The object of our Association is stated in Article II. Quote: "The object of the Association shall be to promote pharmaceutical education and research". At the inception of the organization of Conferences of Pharmaceutical Faculties, these were the objectives. They have not changed, but the tempo, the challenge, and the demands on pharmaceutical education are rapidly increasing. In the early days our Association had problems of organization, standardization — yes, and of accreditation. These problems are items of reoccurrence. We must constantly reevaluate the design of the matrix upon which our Association is built. The trend of education changes; our own educational pattern is in process of redesign. The products of our efforts — the future graduates in pharmacy — will face greater challenges than those of the past.

The increasing number of students anticipated entering our colleges poses a problem for all professional and other educational areas. Many new vistas are open to the prospective student. He must be properly informed in regard to the opportunities which pharmacy offers. There must be a chal-



lenge, and there must be reasonable remuneration. Economics still plays an important part in a student's choice, perhaps more than we would like to believe. Competition for students will be strong. Our objective should be to motivate and encourage only top quality students to enter pharmacy. This is not an easy assignment.

LOUIS C. ZOPF, *Chairman*

## **Report of the Committee on Constitution and By-Laws**

During the year, one proposal for amending the Constitution of the American Association of Colleges of Pharmacy has been presented.

Article VII of the Constitution provides for the office of Vice-President, an office which, in accordance with the present Constitution, would appear to be non-essential and without the assignment of any responsibility or duties other than to assume the duties of the President during his absence.

There has been the feeling among some members that the office of President-Elect should be eliminated and that the duties of this office would be more appropriately assigned to the Vice-President.

The Executive Committee, at its meeting in Boston, on August 25, 1954, discussed the advisability of proposing a rewording of Article VII of the Constitution which provides for the officers of the Association, and requested this Committee to submit a proposal for the rewording of Articles VII and VIII. The Committee, in addition, received further suggestions in regard to such a proposal from Secretary Deno.

The Committee in studying Article VII found other parts which it believes should be changed.

The Committee submits the proposal which follows this Report under the title "Amendments to the Constitution and



By-Laws" for the rewording of Article VII and of Article VIII, which has the approval of the Executive Committee and which has been circulated by mail to all member-colleges by the Chairman of the Executive Committee, in accordance with the Constitution. The proposal is ready for a vote and will require for adoption a two-thirds majority vote of the total active membership.

Attention is called to the fact that Article VII of the Constitution requires that the President shall present an annual address, whereas in Article XVIII of the By-Laws, the Order of Business, the fifth item lists the President's report. The Committee, therefore, submits the proposal for the change of the fifth item of Article XVIII of the By-Laws as included under the title 'Amendments to the Constitution and By-Laws' following this Report.

J. LESTER HAYMAN, *Chairman*

**Amendments to the Constitution and By-Laws (May 3, 1955)**

Article VII. Officers. The officers of the Association shall be a President, a Vice-President, a Secretary-Treasurer and a Chairman of the Executive Committee, who shall hold their respective offices for one year or until their successors are elected and installed. All of the officers, except the President, shall be elected by ballot and at least two nominees for the office of Vice-President shall be submitted.

The Vice-President shall succeed automatically to the office of President upon the death or incapacity of the President or upon the election of his successor as Vice-President and in the last-named instance he shall be installed, along with the newly elected officers, at the final session of each annual meeting.

The President, or in his absence the Vice-President, shall preside at all meetings of the Association, shall present an annual address, shall appoint committees, and shall perform such other duties as pertain to the office of President.

The Editor of the American Journal of Pharmaceutical Education shall be elected by the Executive Committee and

shall hold his office for one year or until his successor is elected and installed.

In the event of the death or other inability of any officer other than the President, the interim succession of the officers shall be directed by the Executive Committee.

**Article VIII. Executive Committee.** The Executive Committee shall consist of a Chairman, the President, the Vice-President, the Secretary-Treasurer and the immediate Past-President of the Association, the Editor of the American Journal of Pharmaceutical Education, and four accredited delegates, two of whom shall be elected by ballot each year from at least four nominees and who shall hold office for two years or until their successors have been elected and installed.

As a matter of record, the Committee reports that it has submitted to the Executive Committee, in compliance with their request, proposals for the re-wording of Article I, Section 7 b of the By-Laws having to do with degrees offered by member colleges for the prescribed course.

Amendment to the By-Laws (May 3, 1955):

Article XVIII. Order of Business.

5. President's Address.

## **Report of the Editor of the American Journal of Pharmaceutical Education**

The ever increasing amount of material that has come from the activity of the Officers, the Committees, and the Conference of Teachers of the Association, is making it difficult to keep within the 750 pages allotted to a volume.

The Editor has studied this material with care, toward the possibility of printing abstracts of reports rather than printing them in their entirety. He finds such a plan unsatisfactory, since it is impossible in an abstract for a com-

mittee to adequately cover its methods of procedure and its way of thinking and reasoning while aiming at its conclusions. Since the vital work of this Association is done in committees, it seems necessary to publish reports in full if a complete picture of their work is to be obtained and recorded for posterity. Even a casual survey of the committee reports will show that, in the main, their reports are written in a clear cut manner, without verbosity, and the points made are understandable to any reader. That, of course, is the object of their publication.

Another point, the Editor has cautioned against the excessive use of tables in reports and articles presented for publication. Tables take space and are expensive to set in type. Furthermore the information obtainable from a table can often be expressed in a brief paragraph in the text with better understanding on the part of the average reader. It has been the policy, however, of the Journal to print a table when the author feels that deleting it would weaken his paper.

In order to keep the news items within bounds it is necessary to edit them severely. It requires constant vigilance to prevent repetition when the same news item comes from two or more sources or is repeated two or three times from the same source. It has been the policy of the Journal to eliminate from the news items the names of faculty members who attend the APhA meetings, and announcements of those who read papers in both APhA and AACP meetings, since they appear in due time in the official journals. On the other hand, those who attend or contribute papers to the programs of other national scientific and educational organizations are noted, when they are available, since they show the interest and scope played by pharmacists beyond the pharmaceutical area. This constitutes an activity that should be recognized and commended.

Likewise no mention is made in the news items of the attendance at the annual AACP meetings, or of the AACP committee appointments, or of articles read in the Confer-

ence of Teachers, since all appear in the Journal in due time and to include them in the news items would be a mere duplication. The only exception is in the case of special committees which do not appear in the list of committees in the Proceedings number.

In compiling the news items an attempt has been made to use only those that are of general interest. Student activities of a social nature and of purely local interest are not included. This does not mean that the activities are not worthy procedures. They certainly are, but every one knows the party, the dance, and athletic activities will go on among young people without any publicity, because they are human beings. On the other hand, when students, singly or in groups, engage in constructive activities that promote the scholarship and welfare of the institution, these activities are recognized.

Fraternities and sororities are important in college life. It has been customary to announce the number of new initiates. In the case of the Rho Chi Society, the creation of which was intended to promote scholarship, we think the names should be printed even though the membership in that organization is brought up to date annually.

An effort has been made to make the news items the current historical record of the progress of pharmaceutical education, insofar as the AACP is concerned. Unfortunately four institutions are never heard from, no attention is paid to the repeated quarterly appeals. They must get the request for the letters never come back. So far as the Journal is concerned, these four institutions can be considered out of the world, except for the fact that their names appear in the membership list printed on the inside covers.

RUFUS A. LYMAN, *Editor*

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## **Report of the Committee on Curriculum**

A meeting of the Committee on Curriculum was held on January 28 and 29 at the Temple University School of Phar-

macy with the full membership in attendance. The Committee wishes to express its appreciation to Dean Joseph B. Sprowls and his staff for the excellent facilities and conveniences which were provided for its meeting.

Based upon assignments inherited from last year's Committee, upon suggestions referred to it from various sources, and upon its own interpretation of its duties the Committee has devoted its attention this year to the following:

1. The curriculum for the five year program with special concern for:
  - a. The first two pre-professional years.
  - b. Provision for general education courses.
2. The problem of professional ethics and the development of a professional attitude among pharmacy students.
3. The use of advisory committees in each of the five areas of the curriculum.
4. In-service training and continuation study for pharmacists.

#### **I. The Curriculum for the Five Year Program**

Additions to the By-Laws adopted by this Association at the Boston meeting last year, require the completion, at a date in the near future, of a five year program of pharmaceutical education, including both pre-professional instruction and a minimum of three years of professional instruction. This requirement does not prescribe the pattern of the five year program but allows flexibility for the individual school to choose either a 0 + 5, 1 + 4, or 2 + 3 pattern as best fits its needs. Of the thirteen member colleges in this country now offering a five year program on either a required or optional basis, six are following the 1 + 4 pattern and seven are following the 2 + 3 pattern.

The Committee has kept in mind the desirability of maintaining this flexibility of pattern. Where the terms pre-professional or pre-pharmacy appear in this report they are used in the same sense as the wording in the By-Laws and do not imply endorsement of any particular pattern.

##### **a. The Two Pre-professional Years**

With the developing pattern of higher education in this country, where increasing numbers of young people are ob-

taining their first two years of college training in liberal arts colleges and junior colleges, more and more students will be coming into pharmacy from such institutions. In many cases these people will have completed substantially all of the first two years of the five year program in pharmacy. For this reason as well as others it appears highly desirable that guidance be provided in the form of a recommended pre-professional program of courses.

The question of pre-professional requirements has been considered by this Committee in previous years, particularly in 1950 and 1952. It has also been exhaustively treated in Chapter 12 of *The Pharmaceutical Curriculum* by Blauch and Webster<sup>1</sup>. The Committee this year studied those reports and was guided by their recommendations.

It has been suggested by some that the Committee on Curriculum should prescribe a rather clear-cut two year pre-professional curriculum for adoption by the Association. We feel that such a curriculum should be presented as a recommendation rather than an inflexible specification. We feel, further, that any such recommendation should be geared to the wording of the By-Law requirement for the five year program and that it should be flexible enough to fit into either the 0 + 5, 1 + 4, or 2 + 3 pattern for the program.

With these guiding thoughts, and with the belief that the Association should have the opportunity to express its feeling in the matter, we propose the following:

*Be it resolved* that, in the five year program required by Article I, Section 7 of the By-Laws, the American Association of Colleges of Pharmacy recommends the completion of the following minimum program of studies prior to the three years of professional instruction:

English	6 hours
Biology (Plant and Animal)	8 hours
College Mathematics	6 hours
General Chemistry and Qualitative Analysis	10 hours
Organic Chemistry	8 hours
Physics	8 hours
Economics	4 hours
General Education	10 hours
Total	<hr/> 60 hours



The Committee wants to emphasize that the hours for the various courses in this recommended program should be considered as the minimum. It is recognized that the hours will vary among schools. For example, the only courses available in biology, physics or organic chemistry in some schools may be 10 hour courses. It is obvious that as the hours for basic science courses are increased the number of hours available for general education courses will suffer a decrease. In some cases this might result in the virtual elimination of the hours available for general education. In such a situation we suggest that provision be made for general education courses in the subsequent three years of professional instruction to compensate for the loss in hours in the pre-professional program.

The Committee is aware of a problem that may arise as more students come into pharmacy after one or two years in a liberal arts college or a junior college. There is the feeling within the Committee that some of the basic courses in the physical and biological sciences that are available in such institutions may not be a sufficient foundation for the applied courses in the subsequent years of professional instruction. As the junior college movement continues to grow this problem may become more acute. It is of particular concern for those schools following the 2 + 3 pattern since, on such a pattern, all of the students who enter the last three years of the program might conceivably have completed all of their pre-professional requirements in a junior college.

Although the problem might arise in any of the basic sciences the Committee feels that it would be more acute in organic chemistry since this course has possibly more application than any of the others in all of the subsequent professional courses. We list the following as possible alternatives that a school of pharmacy might follow in such a situation:

- (1). Withhold credit for organic chemistry earned in any school other than the school of pharmacy or the institution of which it is a part. This would have the advantage of requiring the student to complete a course of known quality. It would have the disadvantage of withholding credit for



a course which might have been as good or better than the one to be required, which might penalize the student and cause him to lose his enthusiasm and interest for pharmacy. It would have the further disadvantage of organic chemistry being required in the third year of the program, thus reducing the hours available for professional courses.

(2) Require such student to complete a one semester didactic course in intermediate organic chemistry which is designed to satisfy the deficiencies of his previous course. Although this might have some of the advantages and disadvantages of (2) above such a course could be given concurrently with the professional courses in the third year of the program without too serious a handicap.

(3). Require such students to pass an achievement examination in organic chemistry. Such examinations are available from the Educational Testing Service in Princeton, New Jersey. The Association's Committee on Predictive and Achievement Tests might also be of service in this regard. This alternative might be combined as an "either or" proposition with (1) or (2) above.

(4). Maintain a close liaison with the colleges from which such students come, to evaluate their courses in organic chemistry and to impress them with the necessity for an adequate course as a foundation for the professional instruction in pharmacy. If such missionary work served to improve the quality of organic chemistry in these colleges it would be of benefit not only to the school of pharmacy but to the cause of higher education as well.

#### **b. General Education in the Five Year Program**

General education, as used in this report, includes the social sciences, humanities and liberal arts. It does not include such courses as English, Mathematics and similar courses which, in the opinion of the Committee, should be regarded as tool courses in the education of a pharmacist.

The Committee can add nothing to the strong and valid arguments that have been advanced by others in previous years for the cause of more general education in the pharmacy curriculum; to attempt to do so would only result in a re-hash of some of those arguments. We strongly endorse the views of those who advocate more general education. We point out that one of the arguments for adoption of the five year program was the opportunity it would provide for more general

education. That opportunity is now at hand and whether or not advantage is taken of it is a decision which each member college must make for itself.

The Committee wished to study the curricula of the 13 member colleges which now offer a five year program in order to determine the trend in general education. We were fortunate in having available for this purpose the recently published Pamphlet No. 113 from the Office of Education, entitled "General and Liberal Educational Content of Professional Curricula: Pharmacy"<sup>2</sup>. Table 1 in that publication summarizes the average content, by subject-area, of the pharmacy curriculum for 69 four year programs and for 5 five year programs that were available at the time it was written. Through the kind cooperation of its author, Dr. Jennings B. Sanders, this analysis was extended to include the curricula of the 13 member colleges which now offer the five year program. Table 1 of Pamphlet No. 113 is reproduced in the following table, with columns 6 and 7 added. The explanatory notes below the table are those of Dr. Sanders and have been taken from letters from Dr. Sanders to the Committee.

It will be noted that in the curricula of those schools which now offer the five year program there is a significant increase over the average for the four year program in the hours allotted to general education. The Committee was agreeably surprised to find that, when the data for 5 year programs (columns 4 and 5) were extended to include the 13 five year programs (columns 6 and 7) there was no significant decrease in the hours for general education. In other words, as more schools have continued to adopt the five year program the average number of hours for general education have not decreased. We commend this as a healthy situation and point to it as an example for all schools to follow as they plan their changes from the four to the five year program.

Less complimentary is the observation that, of an average total of 164 hours for the five year programs now being offered, only 23 hours or 14 per cent of the program is given to general education. Included in these hours are courses in ac-

counting, marketing and business administration where such courses were not listed under pharmacy titles in the catalogs. Such courses, in the opinion of the Committee, are tool courses, if not professional courses, in the pharmacy curriculum.

**Average Content, By Subject Area, Of The  
Pharmacy Curriculum\***

Subject	69 4-Year Programs		5 5-Year Programs		13 5-Year Programs	
	Semester Hours	% of Total Curriculum	Semester Hours	% of Total Curriculum	Semester Hours	% of Total Curriculum
1	2	3	4	5	6	7
Pharmacy	65.8	47.3	78.0	48.5	74.2	45.2
Mathematics	5.0	3.6	5.6	3.5	6.6	4.0
Physical Science	30.0	21.6	30.1	18.8	32.7	20.0
Biological Science	20.1	14.4	15.6	9.7	20.3	12.4
Social Sciences and Humanities	10.1	7.2	18.3	11.4	19.5	11.8
Communication Arts	6.3	4.5	8.8	5.5	7.3	4.5
Liberal Arts electives not included above	1.9	1.4	4.2	2.6	3.4	2.1
<b>Total</b>	<b>139.2</b>	<b>100.00</b>	<b>160.6</b>	<b>100.00</b>	<b>164.0</b>	<b>100.00</b>
<b>Total for Pharmacy, Physical Science and Biological Science</b>	<b>115.9</b>	<b>83.3</b>	<b>123.7</b>	<b>77.0</b>	<b>127.2</b>	<b>77.6</b>

**\*Explanatory Notes:**

1. Credits for military drill and physical education are not counted in total hours.
2. Biology, botany, zoology, bacteriology, physiology, first aid, etc., are classed as Biological Science; Pharmacognosy and pharmacology are classed as Pharmacy.
3. Courses in Physical Science are chiefly chemistry and physics.
4. Hours in Pharmacy include professional electives.
5. Hours in Social Sciences and Humanities include electives required to be chosen from those areas. Accounting, marketing and business administration provided they were not offered as professional pharmacy, are counted as social sciences.
6. Where the catalogs gave no clue as to the field of electives, the hours are arbitrarily divided on a 50-50 basis between professional and liberal arts subjects.

Inspection of the individual curricula for the 13 five year programs showed great variations from the average in the above table, as well as some other points which the Committee feels is of interest to report. The following observations are believed pertinent:

(1). In the six 1 + 4 programs there are 0, 2, 2, 6, 9, and 12 hours, respectively, of general education in the first year and 3, 4, 7, 12, 12, and 18 hours, respectively, in the last four years.

(2). In the seven 2 + 3 programs there are 0, 7, 7, 7 to 14, 14, 15, and 20 hours, respectively, of general education in the first two years and 0, 0, 0, 0, 6, and 6 hours, respectively, in the last three years.

(3). As far as could be determined from the catalogs all but two of the 13 programs permit some electives in the professional years to be chosen from the field of general education.

(4). In one 2 + 3 program anatomy and histology are required in the second year. In another, anatomy and quantitative analysis are required in the second year. In still another, physiology, quantitative analysis and accounting are required in the second year. The Committee believes that such courses should be reserved for the later years of professional instruction, thereby allowing for more hours of general education in the first two years.

It is apparent from this inspection that some of the schools now on the five year program have provided for the bulk of their general education to precede the three years of professional instruction while others have provided for an integration of the general education throughout the entire five years of the program. The advantages and disadvantages of each arrangement have been cited by Blauch and Webster<sup>1</sup>. The Committee believes that while a significant portion of the two pre-professional years should be devoted to general education, opportunity should be provided for the election of some courses in general education during the three years of professional instruction. We believe further that the student should be encouraged and advised to use such electives to better equip himself as a member of the society in which he will later practice his profession.

## 2. Professional Ethics for Pharmacy Students

We agree with the 1954 Committee on Curriculum that the fostering of professional attitudes and ethics in students of pharmacy is the continuing responsibility of every school, every teacher and every preceptor. In addition, we have the firm opinion that what needs to be accomplished here *can* be done to a great extent by a separate course or a separate segment of a course devoted to this subject.

The Committee this year asked itself the somewhat philosophical question of whether a proper professional attitude and a sense of professional ethics in the practicing pharmacist can be assured by requiring him to take a course in this subject during his academic training. We must admit that we have no tangible evidence to support an affirmative answer nor do we as a Committee have the means of obtaining such evidence. Ethics, in the final accounting, is a matter of the conscience of the individual and no amount of instruction can instill morals into the individual against his will.

We hasten to add, however, that it *is* possible to make the student of pharmacy aware that there is such a thing as professional ethics and an acceptable professional attitude and manner of conduct. Moreover, it is the duty of the school to direct his thinking in this area, under as expert guidance as possible, in order that the student may begin to develop (a) his own sense of professional ethics and responsibilities; (b) an ability to weigh the issues he will face in his daily work; and (c) an ability to discriminate alternatives of action and their long range as well as short range consequences for himself and for his profession.

From their training in the home, in the school and in the church most of our students come to us with a good understanding of right and wrong and in many cases with a highly developed sense of morals and ethics. But their problem becomes very real when they attempt to bridge the gap (and in many cases to reconcile the difference) between their own personal code of ethics and the professional practices which they observe. Ample evidence of this may be found in the frequent

questions that are raised by our students in their courses as a result of their observation and experience. And how often are we teachers able to give them a completely satisfactory answer within the frame of an incidental digression from our regular class work? Unless our students are provided the opportunity to explore such questions under guidance and to seek the answers we as educators will fail to meet our moral responsibility to the profession of pharmacy.

The Committee endorses the introduction to ethics in the first year orientation course and it endorses the efforts of all teachers to indoctrinate their students with a good professional attitude in every course in the curriculum. The Committee believes, in addition, that there is need for at least one, and preferably two, credit hours of instruction in the subject of professional ethics in the curriculum. The questions of credit hours, of whether it should be a separate course or a unit of another course, and of what year in the curriculum it should be given are best answered by the individual schools. Guidance in these matters and, to some extent, alternate viewpoints may be found in the excellent discussions of the subject by Dean Karl L. Kaufman<sup>1</sup> and Dr. Glenn Sonnedecker<sup>1</sup>.\* The Committee takes this opportunity to express its appreciation to both Dean Kaufman and Dr. Sonnedecker for their letters of advice and counsel during its consideration of this topic. We endorse their views wholeheartedly.

In planning for instruction in this area many schools are confronted with the lack of a qualified teacher for the subject; the teacher in turn is faced with the question of what to teach and where to find source materials for the course. While the Committee has no complete answer to these problems it can make some suggestions. We urge the deans to select as the teacher that staff member who is best qualified in background, interest and attitude and to give him opportunity and encouragement to improve his background and qualifications. The teacher selected for, or volunteering for, this assignment will find guidance and suggestions in the way of course syllabi and source materials by Kaufman<sup>2</sup>, Sonnedecker<sup>1</sup> and others

\*See Gleanings from the Editor's Mail—this issue.—Ed.



in the literature. Much can be accomplished in the stimulation of interest and upgrading of instruction in this area by means of summer seminars and workshops for teachers. The professional orientation section of the 1954 Teachers Seminar on Pharmaceutical Education was an excellent beginning in this direction and the Proceedings of that seminar should be read with great interest by the teachers in this area.

We urge the Executive Committee, in its planning for future teachers' seminars, to keep in mind the need for workshops in this area of the curriculum. Looking toward our future teachers in this field we suggest to those schools giving graduate work in the fields of pharmacy, history of pharmacy and pharmacy administration that they keep in mind the need for men with an adequate background for giving instruction in professional ethics. Specifically, we suggest that the graduate programs of such people include a background in the history of civilization, ethics and philosophy.

### **3. Advisory Committees to the Committee on Curriculum**

The background for this suggestion is contained in the report of the 1954 Committee on Curriculum<sup>5</sup>. Proposed action on the suggestion was contained in Resolution 12 at the Boston meeting<sup>6</sup> which recommended that the Executive Committee approve in principle the use of advisory committees in each of the five areas of the curriculum, the advisory committees to be appointed by the Chairman of the Committee on Curriculum and to be activated as needed.

Discussion of the proposal by the Committee this year brought out the following points:

- (a) Each of the five areas of the curriculum is represented in the seven members of the Committee on Curriculum as it is presently constituted. Should the Committee wish to give special attention to any area of the curriculum it has the freedom to call upon teachers in that area for assistance and advice, as was done this year in its consideration of the problem of professional ethics.
- (b) There is the possibility that the use of such advisory committees might lead to the establishment of rigid out-



lines of courses and course contents reminiscent of the Pharmaceutical Syllabus of former years.

- (c) What is envisioned here, i.e., development of a better understanding of the functions, character and scope of various courses in the curriculum, is a curricular problem peculiar to each staff and it is more properly treated as such by the individual schools.

In summary, if the Committee interprets correctly the desired outcomes of this proposal, we feel that any collective action on it should originate in the various Sections of Teachers at the annual meeting and in the annual teachers' seminars.

#### **4. Continuation Education for Pharmacists**

Continuation study or in-service training for pharmacists, in the opinion of some, may not be a proper subject for the attention of the Committee on Curriculum. We made it a subject of our discussion this year for the following reasons:

- (a) It was suggested to us by some members and we had the sanction of the President of the Association to consider it.
- (b) The Association has done little to assist member colleges to provide organized programs of in-service professional instruction for the practicing pharmacist as recommended by The Pharmaceutical Survey<sup>2</sup>.
- (c) Initial attention to the problem falls within the duties of this Committee in its continuing study of the pharmaceutical curriculum with regard to the needs of the profession and the achievement of graduates<sup>3</sup>.

Continuation study for pharmacists is a part of the broad field of pharmaceutical extension activities and cannot be separated entirely from it. It should be possible, however, to delineate certain services in continuation study which most schools might reasonably be expected to furnish even though they are not equipped to offer a complete pharmaceutical extension service.

It seems hardly necessary for this Committee to point out in detail what the schools might do in the way of short one to three day refresher programs. The objectives and desired outcomes of such programs have been summarized by

the 1951 Committee on Curriculum<sup>9</sup>. Many schools are continuing to provide these programs and their efforts are to be highly commended. Perhaps more schools would be able to make a minimum effort in this direction if they could be provided the necessary encouragement and guidance. We believe that a published record of such activities would provide stimulation to all schools in this regard. We suggest to the Publication Committee of the American Journal of Pharmaceutical Education that they give consideration to the collection and publication, in a separate section in the Journal, of the programs for pharmacists' institutes, seminars and similar type meetings that are conducted by the various schools.

Without meaning to express disapproval of the present efforts of the schools the Committee questions whether such short, sporadic refresher programs are attaining the objectives set for continuation study. We cannot escape the feeling that their greatest value lies in the public relations and good will they build for the school among the practicing pharmacists, which in itself is an important factor. But we feel that they fall somewhat short of the objective to provide the pharmacist with "new pharmaceutical knowledge in a systematic and continuous manner, properly organized and digested"<sup>7</sup>. The surface has barely been scratched in the development of continuous refresher courses, supervised reading, correspondence study courses and systematic visitation and personal counseling of pharmacists as envisioned by The Pharmaceutical Survey<sup>7</sup>.

What then can the Association do to assist member colleges in this problem? Undoubtedly it is a topic of long range significance to which the Executive Committee should give consideration. The Committee on Curriculum wishes to record some of its thoughts with the hope that they may be helpful in further consideration of the problem.

No school of pharmacy has the facilities in money or manpower to set up and administer a complete program of continuation study on its own, much less a complete pharmaceutical extension service. Could the Association sponsor the establishment of a central agency to:

- (a) Set up a program of continuation study that would be made available to any member college?
- (b) Furnish materials, assistance and advice to a member college to carry out any portion of the program that might be within the ability of that college?

This proposition does not contemplate replacement or restriction of the short refresher programs now being conducted by schools; it is intended to supplement them by furnishing systematic, organized and digested material for use by the schools in other ways. Specifically, such an agency might furnish:

1. Correspondence study courses for completion by individual pharmacists or groups of pharmacists in a local community.
2. Regularly collected, coordinated and partially digested information on new drugs from industry sources for continuation study use.
3. Source materials for recommended reading purposes.
4. Audio-visual materials.
5. Instructional packets and guides for use in giving instruction to small local groups of pharmacists.
6. Such other materials as might be desirable.

Many words could be expended on the pros and cons of this proposal. We suggest that, if it merits further consideration, the idea be developed as an experimental study with provision for evaluation of its effectiveness at periodic intervals. The results of such a study should be of great value in the long range plans for continuation study.

The Committee is aware that what is suggested here involves the expenditure of funds which are not now available to the Association. We feel that funds for such a study might be found, if sought for diligently, and not only in the field of pharmacy. As an example of what has been done on this score we cite the fact that, within the years 1944 to 1952, the W. K. Kellogg Foundation gave grants totalling \$1,973,032 to an experimental program of continuation education for physicians<sup>10</sup>.

The Committee does not feel that further detailed consideration of the problem of continuation study for pharma-

cists is within the scope of its duties. We do believe that the problem deserves further study and that there are individuals within our member colleges who are qualified in interest, background and ability to make such a study. Therefore,

We recommend that a special Committee on Continuation Study be appointed to make a study and report on how the Association can assist member colleges to develop a program of continuation study for pharmacists.

#### REFERENCES

1. Blauch, L.E. and Webster, G.L. The Pharmaceutical Curriculum, American Council on Education (1952).
2. Pamphlet No. 113. General and Liberal Educational Content of Professional Curricula: Pharmacy (1954), by Jennings B. Sanders, Office of Education, U. S. Department of Health, Education and Welfare.
3. Kaufman, K.L., *Am. J. Pharm. Ed.* 17, 225 (1953); 18, 255 (1954).
4. Sonnedecker, G., letter of Dec. 20, 1954 to the Committee (attached to this Report; to be published separately), (See "Gleanings from the Editor's Mail" this number).
5. *Am. J. Pharm. Ed.* 18, 617 (1954).
6. *Ibid.* 18, 678 (1954).
7. Elliott, E.C., The General Report of The Pharmaceutical Survey, American Council on Education (1950), p. 230.
8. *Am. J. Pharm. Ed.* 18, 279 (1954).
9. *Ibid.* 15, 555 (1951).
10. *J. Med. Ed.* 30, 31 (1955).

LLOYD M. PARKS, *Chairman*

## Report of the Joint Committee on Pharmacy College Libraries

This Committee has been an active branch of the Association since 1933, owing much to the dedicated work of Chairman C. O. Lee during two decades. Its work took a new turn in 1953 when a reorganization placed two representatives on the Committee from each of three associations, with Dr. Richard A. Deno as chairman. This year President Burt appointed

Miss Charlotte E. Coffman, Librarian of the Temple University Schools of Dentistry and Pharmacy (one-year term) and Miss Clara A. Robeson, Librarian of the Sheppard Library, Massachusetts College of Pharmacy (two-year term), upon recommendation of the president of the Medical Library Association. He likewise appointed Mrs. Irene Strieby, Librarian of the Lilly Research Laboratories (one-year term), and Mrs. Mildred P. Clark, Librarian of Winthrop-Stearns Inc. (two-year term), upon recommendation of the president of the Special Libraries Association. College representatives appointed by President Burt were Dr. James R. Weeks of Drake University (one-year term), and Dr. Glenn Sonnedecker of the University of Wisconsin as chairman (two-year term).

The members appointed from the faculties wish to express their conviction that a Joint Committee represents a wise policy. Among the groups interested in pharmacy librarianship it improves communication and helps to coordinate efforts. And to the Committee's own projects it brings the reinforcement of varying outlooks, ideas and knowledge represented by the college librarian, the industrial librarian, and the teacher.

The symbiotic relationship between the professions of pharmaceutical teaching and librarianship is symbolized by the associate membership now maintained by the Association in the Medical Library Association and the Special Libraries Association. The same can be said of the Committee's objective to have the teacher-chairman attend the annual meeting of each of these associations in alternate years.

Two studies sponsored by the Committee, mentioned in last year's report, have appeared meanwhile in the *American Journal of Pharmaceutical Education*: "Bibliographic Tools for Selection of Published Materials in Pharmacy," by Karl A. Baer (18: 373-381 1954) and "Tools for Pharmacy College Librarianship" by M. Margaret Kehl (19: 15-28 1955). The latter contribution will soon go out as a separate to member colleges. The Committee believes that these studies and others in progress, represent one stimulus toward further improvement of the college library as a teaching and research tool.

Various avenues toward that same objective were explored at a two-day meeting in Indianapolis on April 8 and 9. The Committee members were guests of Eli Lilly and Company, and we wish to record on behalf of the Association our gratitude for the generous hospitality of the Company and its Research Library.

The Committee has been particularly impressed by the potential of a proposed summer "refresher conference" for pharmacy librarians. It would offer a balance of seminar-type instruction and group discussions aimed specifically at making libraries a more serviceable and efficient part of pharmaceutical education. Such a conference would be analogous to one of the Teachers' Seminars. Questions of program, faculty, attendance and budget were discussed in some detail. The Committee believes that a "refresher conference" of five or six days should be held not later than the summer of 1957.

A tentative plan for the summer conference of librarians has been blocked out, which the Committee believes would yield substantial benefits for member institutions. We recommend that the Association approve the project in principle and support a request for funds before an appropriate agency, such as the American Foundation for Pharmaceutical Education.

Looking in the same direction the Committee decided to encourage the establishment of a separate academic course in pharmacy librarianship, similar to the summer courses in medical librarianship and engineering librarianship at Columbia University. When a suitable curriculum has been outlined as a concrete basis for discussion it is proposed that an informal subcommittee, representative of pharmacy colleges and pharmacy librarians, enter negotiations with an academic institution that has demonstrated its interest and effectiveness in specialized library training. The Committee's role is only that of a catalyst. We recommend that the Association approve the objective in principle, which undoubtedly would aid in establishing such instruction.

It should be made clear that this project is neither related to, nor in competition with, the proposed "refresher confer-



ence" which would be a regular event for established librarians. The academic course would be regularly available, specialized training subsequent to general library school education. It would be intended primarily for those just entering the field—either the library of a pharmacy college or of the pharmaceutical industry.

Through such efforts the colleges can eventually expect, and get, more from the librarians serving them and their students. But the extent to which students learn how to use library resources—and do use them—depends at least as much on the teachers as on the libraries. For that reason the Committee recommends that each summer Teachers' Seminar offer a definite place for teachers to present information and exchange views on how student library practice can best serve, and be served, in a particular subject area.

The committee notes with interest and warmly endorses the efforts of the Pharmaceutical Section of the Special Libraries Association to compile a world list of encyclopedias and other source books that give information about drugs. Completion of this difficult endeavor should be encouraged; and we hope that pharmacy college libraries will be ready with any additional assistance that may be needed. Substantial information has been compiled for many countries of Europe and the Near East; much work remains to be done particularly on the literature of Asiatic and Latin American countries.

Even when the latest books and editions of books become known, there remains the question of evaluation and of critical comparison with similar books available to pharmaceutical workers. The Committee views with some concern the lack of scholarly or critical book reviews, in the usual meaning of that term, as a regular feature of American pharmaceutical journals. Because of the implication of this circumstance for libraries, as well as for teaching, the Committee wishes to encourage pharmaceutical journals—and particularly the scientific and educational journals—to evaluate a wide range of pharmaceutical literature by reviews similar to those appearing in similar learned journals of high stand-



ing. As a reminder, or guide, for reviewers the Committee plans to make available a short outline of standard requirements for an adequate book review.

If critical evaluations of new books are readily available to guide purchases and orient the student, librarians should also know which books have earned the preference of teachers in a specialty, the books that are "musts" for every library. As one approach to answering this question the Committee on Standards and Criteria for Pharmacy School Libraries of the Medical Library Association conducted a survey to determine what books and serials faculty members of Colleges of Pharmacy and pharmacy librarians felt essential to undergraduate and graduate work in certain subject areas closely relating to the pharmaceutical curriculum. Extensive and capable work has produced a report that reflects the consensus of faculty opinion in a useful way. It is a report that should command the interest of faculty members as well as librarians; and the Joint Committee recommends that the Association sponsor publication in an early issue of the *Journal*, with subsequent distribution of offprints to the member colleges.

Another project of the same Committee in the MLA pharmacy group concerns suggested minimum qualifications for pharmacy college librarians (analogous to those adopted by medical librarians). The objective here is to set a goal for the recruit to pharmacy librarianship, an effort that commends itself to the colleges and to the cooperation of this Committee.

As another facet of the effort toward further improvement of the libraries serving colleges of pharmacy, the Committee commends the attention being given to library services in the inspection procedure of the American Council on Pharmaceutical Education. The Committee also wishes to suggest that the Council give consideration to the appointment of library consultants, on a regional basis, to assist accreditation teams in evaluating pharmacy college libraries. Experience elsewhere indicates that the resulting analytic reports, from experienced library authorities, could be of considerable help to the colleges.

The excellent work being done by the Medical Library Association and the Special Libraries Association, and their pharmaceutical groups, deserve appreciation and support among the colleges and college librarians. Personal or institutional memberships are helping to make a growing number of librarians better informed librarians. Yet, the Committee is aware that there are various services, events, and publications of value to library operation that often escape the attention of librarians or interested faculty committees. For that reason, we suggest that a page in the *Journal* be allotted semi-annually for a column of library notes, to be edited under the sponsorship of the Committee. In making this suggestion the Committee has in mind a kind of bibliographic guide to current material from scattered sources, having a special interest to pharmacy libraries.

A quite different purpose is served by the definitive studies and special surveys sponsored by the Committee through allied groups or ancillary workers. This series of published contributions to pharmacy librarianship is typified by the work of Mr. Karl Baer and of Miss Margaret Kehl, referred to previously. Several other contributions have been authorized or are in preparation: (1) a survey of methods that have proved most effective in stimulating fruitful use of the pharmacy college library; (2) a booklet for beginning pharmacy students on pharmaceutical literature and use of the library; (3) a survey of special collections, unusual holdings, and distinctive services among pharmacy college libraries; (4) revision of the Strieby-Spencer world list of current pharmacopeias; and (5) an article on technics of operating a small specialized library efficiently with minimum professional personnel.

The Committee studied various other topics with varying degrees of care. For example, the Committee has been interested in the question of standardization of documentation and bibliographic practices; and one of the members expected to represent the Committee this past week at a meeting called by Committee Z39 of the American Standards Association. Another example would be the compilation of an international, critically annotated list of serials pertaining

to pharmacy, which has been tentatively approved for future action. The Committee also follows with interest the effort of the SLA Pharmaceutical Section to establish a pharmaceutical abstracting service. Several proposals for Committee service need not be discussed here, pending further consideration and action.

To continue its work along these lines, the Joint Committee has requested the Executive Committee to allot sufficient funds for a meeting during the next Association year and for certain project expenses. The Committee appreciates the Association's active interest and support that have made our activities possible.

### **Recommendations**

Besides the suggestions in this report, the following specific recommendations may be pointed out. The Committee recommends:

(1) That the Association approve in principle a "refresher conference" in pharmacy librarianship, preferably not later than the summer of 1957, and support a request for necessary funds before an appropriate agency.

(2) That the Association approve in principle, and encourage, the establishment of an academic course specifically in pharmacy librarianship, at a qualified institution of higher learning.

(3) That the Association favor providing a definite place in each Teachers' Seminar for teachers to present information and exchange views on how student library usage can best serve—and be served by—a particular subject area.

(4) That the Association publish in an early issue of its Journal the Report of the Committee on Standards and Criteria for Pharmacy School Libraries of the Medical Library Association entitled "Books, Reference Works and Periodical Literature Recommended for College of Pharmacy Libraries" and that offprints of this report be distributed to member colleges.

GLENN SONNEDECKER, *Chairman*

## **Report of the Council on Conference of Teachers**

The Conference of Teachers convened at 3:00 p.m. on May 2 immediately after the Second General Session of the American Association of Colleges of Pharmacy.

The following reports were presented and accepted by the Conference:

1. Report of Secretary-Treasurer, Edward P. Claus
2. Reports of the five Teachers' Sections

A motion from the Pharmacy Teachers Section was received and made into the following recommendations:

WHEREAS the members of the Conference of Teachers find it a hardship to attend the annual Conference meeting during the academic year, therefore,

BE IT RESOLVED, that the Conference of Teachers favors holding the meeting during the summer months, but in conjunction with the AACP and the APhA.

3. Reports of Standing Committees
  - a. Resolutions by Dr. L. M. Parks
  - b. Membership by Herman O. Thompson
  - c. By-Laws by Heber W. Youngken, Jr.
  - d. Auditing by Stephen Wilson
4. Report of Special Committee on Future Program Possibilities by Lee Worrell

Upon consideration of use of funds in possession of various sections, it was recommended that each section utilize such funds in further development of their programs.

Upon conclusion of the meeting of the Conference of Teachers, the Council assembled for reorganization.

The following representatives of the Teachers Sections were present:

G. F. Reddish, Biological Sciences; Paul Jannke, Chemistry; Herman O. Thompson, Pharmacy; Haakon Bang, Pharmacy Administration; Roy A. Bowers, the AACP; and Edward P. Claus, as Secretary-Treasurer of the Conference. Ewart Swinyard, representative of Graduate Instruction was absent.

Also in attendance were interested officers of the various sections.

The following were elected as officers for 1955-1956:

Herman O. Thompson, Chairman  
Haakon Bang, Vice-Chairman  
Edward P. Claus, Secretary-Treasurer  
(serving the second of a three-year term)

Authorization was given the Secretary-Treasurer to pay expenses of the Conference and of the Sections for the coming year.

As a result of inconveniences experienced by some sections, a discussion followed relative to the matter of furnishing adequate projection equipment and facilities for future meetings of all of the sections. It was decided that the Secretaries of the Sections and the Secretary-Treasurer of the Conference take necessary steps to assume these facilities.

HERMAN O. THOMPSON, *Vice Chairman*

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## **Report of the Secretary-Treasurer of the Council on Conference of Teachers**

The Conference of Teachers of the American Association of Colleges of Pharmacy is composed of dues-paid members who are enrolled in one or more of the four Sections of Teachers in addition to the Section of Teachers of Graduate Instruction. The membership list distributed prior to this meeting reveals that there are 77 in Biological Sciences, 77 in Chemistry, 120 in Pharmacy, and 60 in Pharmacy Administration. Although these figures total 334, a number of the members belong to more than one Section. The membership of the Conference is accurately indicated by the number of enrollees in the Section of Teachers of Graduate Instruction, namely, 292. Of these, 19 have paid dues until July 31, 1956, and 2 have paid until July 31, 1958. The dues of the remaining 271 will expire on July 31, of 1955.

Inasmuch as the fiscal year of the Conference extends from August 1 to July 31, no requests for dues have been mailed since the 1954 Convention. During the year, August 1, 1954 to July 31, 1955, two AACP conventions will have been conducted; thus, requests for payment of dues for 1955-1956 will be sent very shortly. Officers of two Sections, Pharmacy and Pharmacy Administration, have actively campaigned for new members within the past two months resulting in a decided increase in membership in those Sections.

The business of the Conference is conducted by the Council on Conference of Teachers of the AACP, which Council is composed of the elected Representatives from each of the five Sections, one appointed representative of the AACP, and the Secretary-Treasurer. The Council members for 1954-1955 are:

Representative of Biological Sciences	— Maynard W. Quimby
Representative of Chemistry	— Melvin W. Green
Representative of Pharmacy	— Herman O. Thompson
Representative of Pharmacy Administration	— Haakon Bang
Representative of Graduation Instruction	— Donald C. Brodie
Appointed A.A.C.P. Representative	— Roy A. Bowers
Secretary-Treasurer	— Edward P. Claus

The Council met immediately following the regular business meeting of the Conference on Monday, August 23, 1954, at the Hotel Statler in Boston and elected the following officers:

Chairman—Donald C. Brodie	(for a 1-year term)
Vice-Chairman—Herman O. Thompson	(for a 1-year term)
Secretary-Treasurer—Edward P. Claus	(for a 3-year term)

No other formal business was conducted at this meeting except that the Secretary-Treasurer be empowered to pay the bills as customarily presented by the Section officers.

Although each of the five Sections has its own treasury, only one account is utilized; it is designated as the treasury of the AACP Conference of Teachers. The following amounts represent the balance in the treasury of each Section on April 30, 1955 (complete figures are given on the following page):

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Biological Sciences	—	\$169.40
Chemistry	—	155.00
Pharmacy	—	219.08
Pharmacy Administration	—	71.40
Graduate Instruction	—	157.45
		<hr/>
Total	—	\$772.33

The grand total of \$772.33 is on deposit in a checking account at the Oakland Branch, Peoples-First National Bank and Trust Company, Pittsburgh, Pa.

Expenses of the Secretary-Treasurer's office are financed by the AACP inasmuch as the By-Laws of the Conference provide that all money collected shall revert to the individual treasuries of the five Sections. Since 1951-1952 when the organizational expenses were paid by the AACP that body has allotted \$50.00 each year to defray operational expenses.

The balance of this fund as reported on August 1, 1954, was \$4.01, which with the 1954-1955 allotment of \$50.00 totaled \$54.01. Expenses for the period August 1, 1954 to April 30, 1955, were \$26.02 (complete figures on a following page), thus leaving a balance of \$27.99. This amount is in the secretary-treasurer's possession as cash.

Although this balance of \$27.99 represents an increase over last year's balance, all of this will be expended for printing, receipt cards, and postage when the requests for 1955-1956 dues are mailed. Thus, the AACP has been requested to again allot \$50.00 for the operation of this office.

In closing, I wish to thank the Council members, the Conference officers, the Section officers, and Secretary-Treasurer Richard A. Deno for their cooperation.

EDWARD P. CLAUS, *Secretary-Treasurer*  
AACP Conference of Teachers



April 30, 1955

AMERICAN ASSOCIATION OF COLLEGES OF PHARMACY  
CONFERENCE OF TEACHERS  
Statement of Section Accounts  
1954 - 1955

BIOLOGICAL SCIENCES:

Brought forward (1953-1954)	\$214.00	4/5 —	\$171.20	1/5 —	\$ 42.80
Dues Collected (1954-1955)	14.00	4/5 —	11.20	1/5 —	2.80

Total	\$228.00		\$182.40		\$ 45.60
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Section Expense reported		0			
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182.40

Printing Expense charged		13.00			
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FINAL BALANCE on April 30, 1955			\$169.40		
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CHEMISTRY:

Brought forward (1953-1954)	\$190.00	4/5 —	\$152.00	1/5 —	\$ 38.00
Dues Collected (1954-1955)	20.00	4/5 —	16.00	1/5 —	4.00

Total	\$210.00		\$168.00		\$ 42.00
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Section Expense reported		0			
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168.00

Printing Expense charged		13.00			
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FINAL BALANCE on April 30, 1955			\$155.00		
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PHARMACY:

Brought forward (1953-1954)	\$262.00	4/5 —	\$209.60	1/5 —	\$ 52.40
Dues Collected (1954-1955)	51.00	4/5 —	40.80	1/5 —	10.20

Total	\$313.00		\$250.40		\$ 62.60
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Section Expense reported		18.32			
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232.08

Printing Expense charged		13.00			
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FINAL BALANCE on April 30, 1955			\$219.08		
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### PHARMACY ADMINISTRATION:

Brought forward (1953-1954)	\$ 87.00 4/5 —	\$ 69.60 1/5 —	\$ 17.40
Dues Collected (1954-1955)	41.00 4/5 —	32.80 1/5 —	8.20
Total	\$128.00	\$102.40	\$ 25.60
Section Expense reported		15.50	
		86.90	
Printing Expense charged		15.50	
FINAL BALANCE on April 30, 1955		\$ 71.40	

### GRADUATE INSTRUCTION:

Total apportioned by Sections	\$175.80
Section Expense reported	5.35
	\$170.45
Printing Expense charged	13.00
FINAL BALANCE on April 30, 1955	\$157.45
GRAND TOTAL—CONFERENCE TREASURY (Section Totals) —	\$772.33

### AMERICAN ASSOCIATION OF COLLEGES OF PHARMACY

#### CONFERENCE OF TEACHERS

#### Expenses of Secretary-Treasurer

August 1, 1954 to April 30, 1955

#### INCOME

August 1, 1954	Balance from 1953-1954	\$ 4.01	
December 4, 1954	Check received from A.A.C.P. Secy.-Treas. Deno	50.00	\$54.01

#### TOTAL INCOME

\$54.01

#### EXPENSES

March 1, 1955	Postage (Stationery supplies to Section officers)	\$ 6.98
April 15, 1955	Clerical and Stenographic Assistance	9.00
April 25, 1955	Printing Expense (Paid to regular Conference treasurer)	6.74
April 30, 1955	Postage (Correspondence)	3.30

#### TOTAL EXPENSE

\$26.02 \$26.02

April 30, 1955 BALANCE ON HAND

\$27.99

I hereby certify that the expenses as listed above, totaling \$26.02, were incurred during the period August 1, 1954 to April 30, 1955, in conducting the business of the AACP Conference of Teachers. The balance on hand, \$27.99, is in my possession as cash.

[Signed] EDWARD P. CLAUS, *Secretary-Treasurer,*  
*AACP Conference of Teachers*

April 30, 1955

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## **Report of the Committee on Audio-Visual Education**

The Committee has directed its main efforts during the past eight months to the continuation of two projects commenced in previous years. These are: 1. The Audio-Visual Education Award, (in 1954-55 this award was in the area of pharmacology), and 2. The review of films, film strips or other similar audio-visual aids of teaching value in basic and applied science areas of the pharmaceutical departments. Recommendations pertaining to these projects are mentioned later in this report.

A third project has been explored during the year by the Committee. This was a preliminary study of the possibilities for an Association sponsored central film depository or central film library. A recommendation concerning this problem is also included in this report.

### **I. The Award in Audio-Visual Education:**

Provisions were made by the Executive Committee in January, 1954, for the continuation of the Award in Audio-Visual Education with the area for 1954-55 to be in pharmacology. Details for the participation in this award have been published in our *Journal*<sup>\*</sup>. Numerous entries were judged by last year's committee at Storrs, Connecticut in August, 1954,

when the first award was granted to Riegelman and Ballard, University of California College of Pharmacy, for their production, "The Physical Properties of Cocoa Butter in the Preparation of Suppositories."<sup>\*</sup> Since June, 1954, at least three announcements have been mailed by the Committee directly to pharmacology, zoology, and physiology teachers to urge participation in this year's contest. However, the response has been poor in comparison with last year's competition. There are several factors which might be responsible for this. For example, the comparatively shorter period of time available to participants (eight months vs. twelve months in a normal year) might have discouraged some teachers. Often preparation of such extracurricular material occupies summer months since many teachers are preoccupied during the academic year with heavy teaching tasks. With no summer period available this year between annual meetings it is possible that this situation weighed heavy against participation. It is also true that a large supply of film in the area of pharmacology already exists so that the need for more might not be considered by several teachers to be great. On the other hand it might be argued that there is always a demand for new and better creative audio-visual materials in any teaching area. In fact, much of the film now available in pharmacology does not deal extensively with techniques of the laboratory and general pharmacological methods, two aspects of importance to many teachers in this area.

It appears to the Committee that some handicap has existed as the result of the shorter period this year between annual meetings and therefore in the short academic year during which preparation of films might be completed. It is feasible to expect that the award announcement made last June did not reach many pharmacology teachers until the beginning of the fall term. Therefore it is recommended by this Committee that:

The award in pharmacology be continued for 1955-56 in the event that a suitable number of meritorious entries are not received by April 30 of this year.

<sup>\*</sup>Amer. Jour. Pharm. Ed. 16, No. 4, 582 (1952).

<sup>\*\*</sup>A review of this winning film slide production is included in the addendum to this report, "Film Review for 1954-55."

The award in Audio-Visual Education is considered a worthwhile stimulus to the production of creative films or film strips with emphasis on pharmaceutical techniques. It is recommended that the award be continued so that teachers in the areas of pharmaceutical chemistry and pharmacognosy may be afforded an opportunity to compete. The Committee favors an award for a production in pharmaceutical chemistry as the next subject and following this that the subject be pharmacognosy. If this longer range planning is approved now, it urges that announcements be communicated to teachers in these areas at once so that progress in creative productions in both areas can be commenced at an early date. The precise dates for both subjects should be decided upon by next year's committee pending the results of the pharmacology award.

## **2. Film Reviews:**

More than a dozen teaching films have been reviewed by the committee during the past few years. The films that have been reviewed by this year's committee are listed in the addendum to this report and authors of reviews are properly initialed. Also listed in the addendum are certain films for which abstracts but no reviews are now available.\*\*\*

It is recommended that until such time as this Association or another association in pharmacy can operate a central film library or depository for pharmaceutical material by means of suitable staff, the Committee on Audio-Visual Education should continue to assemble data for film reviews and abstracts. These reviews should be supplemented by listings of currently available audio-visual material pertinent to teachers in our colleges. Reviews and listings should be published as frequently as possible in our *Journal* or otherwise be made available so that teachers can be aided in their search for teaching aids of this kind.

## **3. A Central Film Depository:**

The Committee believes that there would be many benefits to be gained from a central film depository for pharmacy, especially if this could be organized and managed similarly to that of the American Medical Association, American Den-

\*\*\*The addendum will be published in the Fall number of the *Journal*.—Ed.

tal Association, and other professional groups. Teachers would then have a central film agency to turn to for up-to-date information about that which is available in his or her pharmaceutical field. The procurement and distribution of audio-visual materials would be expedited, film reviews would be more promptly circulated, and a steady source of training information concerning audio-visual equipment and preparation might be expected. Best of all, this program would provide pharmacy teachers with a much needed film specialist and professional staff. Such a nucleus for the management of our problems in this very important aspect of teaching would not only serve our academic functions but also those of our refresher courses and other training programs in industrial and hospital pharmacy.

The Committee on Audio-Visual Education has explored this idea in a preliminary way through its representatives to the annual meetings of the Audio-Visual Conference of Medical and Allied Sciences and through a special meeting with certain leaders of this Conference held in Chicago this past January. Two members of the Committee, Drs. Apple and Voigt, met with representatives Ralph Greer of the AMA, Helaine Levin of the ADA, Dr. Edward Foster of the AMC and Professor Tom Jones of the University of Illinois on January 10, 1955, when our present situation relative to audio-visual education was discussed. Advice was solicited from these specialists, and it was strongly recommended by them that we should strive for a central depository.

Results of this conference served to crystallize further that our colleagues in medical and dental education have an enviable centralized program in audio-visual education, a program that has materially aided medical and dental teachings. If our Association is to subscribe to the best program in organizing a film depository and operate it mechanically, it should eventually be set up on a par with those of our sister professions. This means provision should soon be made for a central headquarters and a full-time staff.

The Committee recognizes that such an organization cannot be implemented at this time and that our Association

cannot support it financially for some time to come. However, the need to lay the groundwork for a centralized film depository within our framework cannot be overlooked and a compromise plan should be devised as soon as possible. The Committee urges that efforts be made by the Association to provide for a depository which can be mechanically operable within our present capacities. It would seem that in order to do this there are at least three alternatives that might be considered at this time.

1. That the Association secure an interested person who is now affiliated with a well-established university instructional materials center or depository and one who might be willing to make a thorough investigation of films that would be of value to teachers in pharmaceutical areas. Such a specialist would then obtain the advice of teachers in pharmacy and on their recommendations undertake the procurement of as many of such films, film strips, etc., as possible under the budget of his department. The material would then be placed in the university depository, routinely catalogued for pharmacy and made available at modest rental rates (for film handling, mailing, etc.) to our member colleges.

Although this type of arrangement might seem unrealistic on the face of it since it means that one university would essentially amortize the initial outlay of our pharmacy depository, there is already a possibility that at least one university, the University of Wisconsin, might be interested in such a program. However, unless a sufficient number of teachers cooperate and use such a facility it might well terminate quickly.

2. The second alternative which might be considered is that the Association explore the possibility of obtaining the part-time services of a college of pharmacy staff member, one who is properly qualified and who might devote one-half or one-quarter time to establishing a film depository at his or her university or college. The administrative aspects of such an arrangement are indeed difficult since this would be largely a voluntary assignment and one supported to a great extent by the budget of a member college. However, some



financial support might be contributed by our Association or be solicited from philanthropic foundations. This arrangement would accentuate the independence of our Association in meeting its problem and invite great recognition to the efforts of a member college. Specialized programs of a similar kind are already being sponsored by certain of our colleges. For example, personnel and facilities for the operation of our secretary-treasurer's office at the University of Michigan are to a large extent supported by that university. Other university-sponsored programs which contribute greatly in the personnel, materials and facilities for pharmacy programs are the American Institute for the History of Pharmacy (Wisconsin), Research Society, Inc. (MCP), the Drug Plant Gardens (University of Washington), the latter with its vast seed exchange program, and the Pollen Allergen Collection at the College of Pharmacy, University of Illinois, an extensive library of allergenic materials, which also serves the American Academy of Allergy.

3. The third plan for meeting the need of a central film depository would be to make use of the headquarters staff and facilities of the APhA. This obviously would place the responsibility for the project in the hands of the APhA. Should the latter organization be willing and able to give whole-hearted support to the project by furnishing staff and space for it, much of our problem would be solved. An arrangement of this kind would be quite comparable with that of the American Medical Association, since the latter has assumed the responsibility for its central depository with facilities and staff made available in Chicago.

The Committee then recommends that a central film depository be approved in principle by our Association and that further study be conducted to find the most suitable means for implementing such a program. It also recommends that the Association continue its active affiliation with the Audio-Visual Conference of Medical and Allied Sciences by sending delegates regularly.

The next conference is scheduled for July 23-27, 1955, at the Hotel Sherman in Chicago.

**Conclusion:**

1. The present project of an AACP Award in Audio-Visual Education is considered to be a worthwhile stimulus to creative efforts in the production of films in pharmaceutical areas. The Committee recommends that this award be continued and that the areas of pharmaceutical chemistry and pharmacognosy be selected next in that order.

2. Film reviews should be made annually by the Committee as a contribution to teachers who seek better teaching through audio-visual methods. The Committee recommends that space be utilized in the *American Journal of Pharmaceutical Education* or similar journals whenever possible for the publication of reviews which would be of interest to pharmacy teachers.

3. Since a need exists for a central film depository for films, film strips and similar audio-visual materials of value in pharmaceutical education, the Committee recommends that the Association give further attention to this proposal. It urges that a thorough study be instituted at once to find means by which a central film depository can be set up within the present budget and framework of our Association. Further, it recommends that a report be received not later than the annual AACP meeting in 1956 with the results and resolutions from such a study.

HEBER W. YOUNGKEN, JR., *Chairman*

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## **Report of the Committee on Resolutions and Resolutions from the Executive Committee**

May 3, 1955, Fontainebleau Hotel, Miami Beach, Florida  
The Committee: J. E. Orr, Chairman; P. A. Foote,  
H. C. Muldoon, M. L. Neuroth, F. J. O'Brien.

### **I. From the report of President Joseph B. Burt.**

1. *Be It Resolved*, that the Association authorize the Secretary-Treasurer to prepare and distribute annually or biennially a roster of personnel, listing all full-time staff members of the member colleges.

Approved in principle by the Committee on Resolutions. Since this proposal will necessitate expenditure of Association funds, the Committee recommended that it be referred to the Executive Committee for consideration. On motion Orr-Benton, approved by the Association.

2. *Be It Resolved*, that the Association authorize the Secretary-Treasurer to make available to deans, directors and faculty members of member colleges information concerning existing vacancies in teaching positions and the names of persons available to fill such vacancies, which may have been reported to him, with the understanding that his activities be limited to the furnishing of lists of names and vacancies, and do not include recommendations of any person or institution.

Approved in principle by the Committee on Resolutions. Since this proposal will necessitate expenditure of Association funds, the Committee recommended that it be referred to the Executive Committee for consideration. On motion Orr-Rowe, approved by the Association.

3. *Whereas*, the American Foundation for Pharmaceutical Education through its generous support of many projects has contributed such invaluable service to the cause of education in pharmacy, therefore,

*Be It Resolved*, that the American Association of Colleges of Pharmacy express its thanks and appreciation to the members of the Board of Directors of the American Foundation for Pharmaceutical Education for their continuing support of: The AMERICAN JOURNAL OF PHARMACEUTICAL EDUCATION; the American Council on Pharmaceutical Education; the Teachers' Seminars; Undergraduate Scholarships and Graduate Fellowships; and especially for its vision and foresight in supporting the long-range program of quality recruitment of pharmacy students as developed by our Subcommittee on Recruitment Aids.

Approved by the Committee on Resolutions and on motion Orr-Daniels, adopted by the Association.

## **II. From the address of President Elect Linwood F. Tice.**

4. *Be It Resolved*, that this Association ask the Section of Teachers of Graduate Instruction to give specific attention to the need of member colleges for guidance in setting up and improving programs of academic internship in hospital pharmacy.

Approved by the Committee on Resolutions and on motion Orr-Rivard, adopted by the Association.

5. *Be It Resolved*, that a special committee be appointed to make a thorough study of the advisability of offering Canadian Colleges of Pharmacy some type of membership in our Association and that some formal recommendation from this committee be submitted at our next annual meeting.

Approved by the Committee on Resolutions and on motion of Orr-Torres-Diaz, adopted by the Association.

6. *Be It Resolved*, this Association is concerned about recent and current efforts to break down existing laws designed to safeguard the public health, and about attempts to pass new legislation which would permit the sale by persons not trained in pharmacy of any drug product advertised to the public. Such distribution without supervision by a pharmacist constitutes a potential hazard to the health and welfare of the public, and,

*Be It Further Resolved*, that the member colleges be requested to give their full support to all those agencies now engaged in an attempt to prevent the destruction of laws in the field of pharmacy designed to give the public the protection which they need.

Approved by the Committee on Resolutions and on motion Orr-Hayman, adopted by the Association.

7. *Whereas*, some criticism has been directed against the Association for action taken in admitting certain colleges to membership, therefore,

*Be It Resolved*, that the Association go on record with the following statement: "It is the considered opinion of the Association that no institution should be refused membership in the Association if it meets all of the 'Qualifications for Admission to, and Membership in' the Association as set forth in Article I of the By-Laws. On the other hand, the Association wishes to state clearly its position on the principle of separate but equal facilities for the education of Negroes: This practice is not only unconstitutional by the decision of the United States Supreme Court but also a violation of human rights and the dignity of man."

Approved by the Committee on Resolutions and on motion Orr-Cooper, adopted by the Association.

8. *Be It Resolved*, that this Association shall direct all of its officers and those of Districts coming under its jurisdiction

to hold all meetings of this Association and its Districts only at such places and under such circumstances that all members of this Association are free to attend, and that this directive be sent at once to all parties concerned.

Approved by the Committee on Resolutions and on motion Orr-Clark, adopted by the Association.

### **III. From the Report of the Committee on Audiovisual Education.**

9. *Whereas*, the present project of an award in audiovisual education is considered to be a worthwhile stimulus to creative efforts in the production of films in pharmaceutical areas, therefore,

*Be It Resolved*, that the Association continue this award and that the areas of pharmaceutical chemistry and pharmacognosy be selected next in that order.

Approved by the Committee on Resolutions and on motion Orr-Rowe, adopted by the Association.

10. *Whereas*, film reviews should be made annually by the Committee as a contribution to teachers who seek better teaching through audiovisual methods, therefore,

*Be It Resolved*, that space be utilized in the AMERICAN JOURNAL OF PHARMACEUTICAL EDUCATION or similar journals, whenever possible, for the publication of reviews which would be of interest to pharmacy teachers.

Approved by the Committee on Resolutions with recommendation that it be referred to the Editor. On motion Orr-Rivard, approved by the Association.

11. *Whereas*, a need exists for a central depository for films, filmstrips and similar audiovisual materials of value in pharmaceutical education, therefore,

*Be It Resolved*, that the Association give further attention to this proposal and institute at once a thorough study to find means by which a central film depository can be set up within the present budget and framework of the Association, and,

*Be It Further Resolved*, that a report be received not later than the annual meeting of 1956 with the results and resolutions from such a study.

Since this proposal will necessitate expenditure of Association funds, the Committee on Resolutions recommended that it be referred to the Executive Committee for consideration. On motion Orr-Bliven, approved by the Association.

#### IV. From the Report of the Committee on Curriculum.

12. *Be It Resolved*, that in the five year program required by Article I, Section 7 of the By-Laws, the Association recommends the completion of the following minimum program of studies prior to the three years of professional instruction:

English	6 hours
Biology (plant and animal)	8 hours
College Mathematics	6 hours
General Chemistry and Qualitative Analysis	10 hours
Organic Chemistry	8 hours
Physics	8 hours
Economics	4 hours
General Education	10 hours

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Total 60 hours

The Committee on Resolutions recommended that action on this proposal be deferred until a report on the recommendations for the professional curriculum is available so that possible misunderstanding and misinterpretation of the intent of the resolution might be avoided. On motion Orr-Meriano, approved by the Association.

13. *Be It Resolved*, that a special Committee on Continuation Study be appointed to make a study and report on how the Association can assist member colleges to develop a program of continuation study for pharmacists.

Approved by the Committee on Resolutions and on motion Orr-Torres-Diaz, adopted by the Association.

#### V. From the Report of the Committee on Educational and Membership Standards.

14. *Whereas*, graduate training is of the utmost importance to the future of pharmacy, since much of the educational leadership will stem from it, therefore,

*Be It Resolved*, that the Executive Committee consider the appointment of an appropriate special committee or an existing

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committee to make a comprehensive study of the status of graduate pharmaceutical education and graduate programs at the Ph.D. level.

The Committee on Resolutions recommended that it be referred to the Executive Committee for consideration. On motion Orr-Meriano, approved by the Association.

15. *Whereas*, the Accreditation Manual, 5th Edition, Part 4, Section 5, b and c, makes specific references to the sequence of professional courses requiring a minimum of three academic years of residence in an accredited college of pharmacy, therefore,

*Be It Resolved*, that the Association require adherence to this sequence and a minimum of three academic years (six semesters, nine quarters, or the equivalent) of residence in an accredited college of pharmacy in the five year course irrespective of the program established.

Approved by the Committee on Resolutions and on motion Orr-Sprows, adopted by the Association.

16. *Be It Resolved*, that the American Council on Pharmaceutical Education discontinue the literal classification of colleges of pharmacy as A, B, C or Y at a feasible time and that they be designated by some appropriate term such as "approved" or "accredited" and that any college not having all parts of its curriculum approved could be classed as "pending approval".

The Committee on Resolutions agreed in principle with this resolution but, since it is the intention of the ACPE that all schools are eventually to be class A, it felt that the letter classification should be retained until that time. The Committee, therefore, recommended that no action be taken. On motion Orr-Prout, approved by the Association.

### **VI. From the Report of the Joint Committee on Pharmacy College Libraries.**

17. *Be It Resolved*, that the Association approve in principle a "refresher conference" in pharmacy librarianship, preferably not later than the summer of 1957, and support a request for necessary funds before an appropriate agency.

Approved by the Committee on Resolutions. Since the proposal may necessitate expenditure of some Association



funds, the Committee recommended that it be referred to the Executive Committee for consideration. On motion Orr-Bang, approved by the Association.

18. *Be It Resolved*, that the Association approve in principle and encourage the establishment of an academic course specifically in pharmacy librarianship, at a qualified institution of higher learning.

Approved by the Committee on Resolutions and on motion Orr-Sprolws, adopted by the Association.

19. *Be It Resolved*, that the Association favors providing a definite place in each Teachers' Seminar for teachers to present information and exchange views on how student library usage can best serve—and be served by—a particular subject area.

Approved by the Committee on Resolutions and on motion Orr-Jones, adopted by the Association. Discussion of this resolution emphasized that the Association favors, but does not necessarily direct each Seminar chairman to include in the program the item specified.

20. *Be It Resolved*, that the Association publish in an early issue of its JOURNAL the Report of the Committee on Standards and Criteria for Pharmacy School Libraries of the Medical Library Association entitled "Books, Reference Works and Periodical Literature Recommended for College of Pharmacy Libraries" and that offprints of this report be distributed to member colleges.

Approved in principle by the Committee on Resolutions. Since this proposal will necessitate expenditure of Association funds, the Committee recommended that it be referred to the Executive Committee and to the Editor. On motion Orr-Sprolws, approved by the Association.

#### **VII. From the Report of the Committee on Predictive and Achievement Tests.**

21. *Be It Resolved*, that the new chairman of the Committee on Predictive and Achievement Tests be given an appointment for three years.

Approved by the Committee on Resolutions with the recommendation that it be referred to the Executive Committee for consideration. On motion Orr-Rowe, approved by the Association.

22. *Be It Resolved*, that the Association go on record as favoring the development of achievement tests in chemistry, mathematics and biology at the sophomore level, if such tests are not now available from other sources, and that it charge the future Committee with this responsibility.

Approved by the Committee on Resolutions with the recommendation that it be referred to the Executive Committee for consideration. On motion Crr-Hewitt, approved by the Association.

23. *Be It Resolved*, that the Association, through its President, investigate the possibility of having two specialists in the testing field, who would serve voluntarily, appointed to this Committee.

Approved by the Committee on Resolutions, with the recommendation that it be referred to the President and the Executive Committee for consideration. On motion Orr-Sprowls, approved by the Association.

24. *Be It Resolved*, that the Association charge the future Committee to study the procedure by which the administering of these achievement tests might be carried out on a trial basis and to investigate a method for their financing.

Since this proposal contemplates expenditure of Association funds, the Committee on Resolutions recommends that it be referred to the Executive Committee for consideration. On motion Orr-Bliven, approved by the Association.

#### **VIII. From the Report of the Committee on Public Relations In Pharmaceutical Education.**

25. *Whereas*, the work of the joint committee on Public Relations in Pharmaceutical Education has been so worthwhile, therefore,

*Be It Resolved*, that the Committee on Public Relations in Pharmaceutical Education be continued as a special joint committee of the Association and the American College Public Relations Association for the year 1955-56, and

*Be It Further Resolved*, that a budget of \$500 be allotted to the Committee for its operations in the coming year.

Since this proposal necessitates the expenditure of Association funds, the Committee on Resolutions recommended that it be referred to the Executive Committee for consideration. On motion Orr-Rowe, approved by the Association.

**IX. From the Report of the Committee on Relationships of Boards and Colleges.**

26. *Whereas*, the members of District Four consider that the terms "apprentice" and "apprenticeship" connote preparation for a labor skill; therefore,

*Be It Resolved*, that the American Association of Colleges of Pharmacy urge its member colleges to adopt and employ the words "intern" and "internship" in describing the experience requirement.

Approved by the Committee on Resolutions and on motion Orr-Bliven, adopted by the Association.

**X. From the Committee on Resolutions.**

27. *Be It Resolved*, that the American Association of Colleges of Pharmacy make known its gratitude and appreciation to all persons who had a part in making arrangements for, and carrying out the objectives of this Annual Meeting.

On motion Orr-Wilson, adopted by the Association.

**XI. From the Executive Committee (presented by Dean Louis C. Zopf, Chairman).**

28. *Be It Resolved*, that the report of the Committee on Administrative Procedures, constituting an Officers' Manual, be adopted by the Association as an official guide of the Association.

On motion Zopf-Orr, adopted by the Association.

29. *Whereas*, Dr. Rufus A. Lyman has served as Editor of the AMERICAN JOURNAL OF PHARMACEUTICAL EDUCATION for many years and has an unequalled understanding of its problems, and

*Whereas*, Dr. Lyman has asked that he be relieved of the full responsibilities as Editor of the JOURNAL,

*Be It Resolved*, that the Association authorize the appointment of Dr. Lyman by the Executive Committee as Consulting Editor of the JOURNAL for an indefinite tenure and with an annual honorarium considered appropriate by the Executive Committee.

On motion Zopf-Bowers, adopted by the Association by a rising and unanimous vote.

30. *Whereas*, Dr. Rufus A. Lyman has served the cause of pharmaceutical education and this Association to a degree matched by few in its history, and continues in his dedication and service to the Association,

*Be It Resolved*, that the American Association of Colleges of Pharmacy confer on Dr. Lyman Honorary Membership in the Association, this its highest honor, and one given to only one other person in its history.

On motion Zopf-Youngken, adopted by the Association by a rising and unanimous vote.

**XII. From the Conference of Teachers (presented by Dean Orr, Chairman, Committee on Resolutions).**

31. *Whereas*, the members of the Conference of Teachers find it a hardship to attend the annual conference meeting during the academic year, therefore,

*Be It Resolved*, that the Conference of Teachers favors holding the meeting during the summer months, but in conjunction with the American Association of Colleges of Pharmacy and the American Pharmaceutical Association.

On motion Orr-Burlage, amendment was accepted to transmit Resolution 31 to the Council of the APhA and to the House of Delegates. The amendment was approved by the Association, and the amended Resolution was approved by the Association.

**XIII. From Dean Ferguson.**

32. *Be It Resolved*, that the American Association of Colleges of Pharmacy request the American Pharmaceutical Association to give serious consideration to sponsoring a World Congress of Pharmacy in the United States in 1957, this meeting to be held in conjunction with the Fourth Pan American Congress of Pharmacy and Biochemistry and the International Pharmaceutical Federation.

On motion Orr-Rowe, adopted by the Association.

On motion Orr-Wilson, the report of the Committee on Resolutions as amended was approved by the Association.

R. A. DENO, *Secretary*

## Minutes of the Annual Meeting Executive Committee

Fontainebleau Hotel, Miami Beach, Florida April 29-30, 1955

Chairman Zopf called the meeting to order at 9:30 a.m., April 29.

Present: Bowers, Burt, Christian, Deno, Hiner, Lyman, Reif, Tice, Webster, Zopf.

On motion Burt-Bowers, *it was voted* to approve, as published in the Spring number of the JOURNAL, minutes of the Interim Meeting held in Chicago on January 19-21, 1955.

A revised agenda consisting of the numbered items of these minutes was then considered.

### 1. Communications.

a. *From Dean Foss*, representative of the Association at a special meeting of delegates from the American Pharmaceutical Association and affiliated organizations with officials of the Food and Drug Administration, held in Washington, February 23, 1955. Dean Foss referred the Executive Committee to APhA bulletin No. 4, and supplemented data in this bulletin by report on March 15 to the Chairman of the Executive Committee. On motion Burt-Christian, *it was voted* to receive the report of Dean Foss.

b. *From President Burt*, directing attention to a suggestion referred to him by W. Morris Fleming, past president of the Nebraska Pharmaceutical Association, recommending consideration of a Talent Search for Pharmacists as an activity supplementary to the quality recruitment program of the AACP. On motion Burt-Hiner, it was voted to refer this matter to the Committee on Recruitment Aids for study and recommendation to The Executive Committee.

c. *From the dean of a member college*, suggesting: (a) study by the AACP and NABP of the problem of improvement in supervision of practical experience requirements; (b) study by the AACP and NABP of reciprocity problems

anticipated under the extended program, and the problem of examination of a graduate in a state whose educational requirements may vary from those prevailing in the state where he received his pharmaceutical education.

Consensus was suggestion (a) should be referred to the Committee on Curriculum for study and recommendation to the Executive Committee. Concerning suggestion (b), the Secretary had asked the opinion of the Secretary of the NABP, who stated he did not anticipate difficulty at the time the extended program became mandatory, because most state laws specify that a candidate for licensure must be graduated from an approved college. He assumes approval will apply to the extended program after 1965, but he does not believe this will be retroactive. No further action was considered necessary concerning suggestion (b).

*d. From the dean of a member college*, outlining problems anticipated at the time the extended program is made mandatory and concerning the flood of students anticipated in five or ten years; the need for more accurate predictive tests at that time; and physical and staff limitations of our member colleges. The suggestions were considered significant and pertinent, and point to the need for development of a satisfactory pharmacy college admissions test or for adaptation of existing tests to meet the needs of our member colleges. For action taken on this matter, see item 10c, these minutes.

*e. From the dean of a member college*, in reply to item 7 of the minutes of the 1955 Interim Meeting of the Executive Committee. He stated logical reasons why he believed: (a) the office of President Elect should be retained; (b) the office of Vice President should not be abolished; (c) the Editor should not be an ex-officio member of the Executive Committee. The Secretary had replied that (a) and (b) would be included for consideration at the 1955 Annual Meeting of the Association, and that (c) would be referred to the Executive Committee for consideration (item 9, these minutes).

*f. From Secretary-Treasurer Claus, Conference of Teachers*, enclosing his report for 1954-55. A balance of



\$772.33 was reported. The Executive Committee was requested to allot \$50 to the Conference to defray operational expenses of the Office of the Secretary-Treasurer. On motion Hiner-Reif, *it was voted* to receive the report and to approve the request for operational expenses.

g. *From Arthur H. Einbeck, Chairman, APhA Committee on Status of Pharmacists in Government Service.* Reference is made to Item 1b of the minutes of the 1955 Interim Meeting. Chairman Einbeck reported his Committee recommends that expenses of the Steering Committee and general administrative expenses of the Committee as a whole be shared by the APhA and the NARD. All organizations represented on the Committee, including the AACP, will be asked to pay the expenses of their delegates who attend a meeting of the Committee as a whole. On motion Burt-Reif, *it was voted* to approve this recommendation, and to request the Chairman of the Executive Committee to authorize payment of such travel expenses as they may occur in the future.

h. *Between P. G. Divine, President, Fresno-Madera County Pharmaceutical Association, California, and the Secretary.* This exchange of correspondence deals with the establishment of a School of Pharmacy at the College of the Pacific, Stockton, California. The Secretary referred Mr. Divine to sources of information on requirements for accreditation, and answered specific questions posed by Mr. Divine. Notice has been received under date of March 22 of establishment of this School of Pharmacy, offering a 1-4 program, with instruction to begin in September, 1955, both for prepharmacy students and for students in the first professional year. The Executive Committee expressed approval of the replies transmitted to Mr. Divine by the Secretary.

i. *From President Archambault, American Society of Hospital Pharmacists, in reply to the suggestion contained in item 2 of the minutes of the Joint Meeting of the Executive Committee and the ACPE held in Chicago in January, 1955.* This item emphasized the need for sound academic work in all programs in hospital pharmacy sponsored by member colleges. President Archambault mentioned the activities of the



Policy Committee of the Division of Hospitals of the APhA and the ASHP. He noted a dean of a member college is a member of this Committee, representing the APhA.

Dean Burt directed attention to a recommendation in the address of President Archambault to be presented before the ASHP on May 2: "I now recommend that the Society consider going further in this direction and that we recommend to the Division of Hospital Pharmacy of the APhA and ASHP that its APhA membership include a nominee of the AACP." This recommendation obviously is aimed at official recognition of the AACP in the Division of Hospital Pharmacy.

After discussion, on motion Tice-Hiner, *it was voted* to instruct the Secretary to inquire concerning the possibility of official representation of the AACP on the Policy Committee of the Division of Hospitals of the APhA and the ASHP. Consensus was that indirect representation of the AACP through inclusion of a nominee in the APhA membership of the Division of Hospital Pharmacy would not provide the type of representation considered desirable by the Executive Committee.

j. *From the Corresponding Secretary, Pennsylvania State Board of Pharmacy*, expressing agreement with the resolution of the Executive Committee of the 1955 Interim Meeting dealing with legislative changes regarded as weakening pharmacy, (item 24, minutes of the 1955 Interim Meeting).

k. *From the Chairman of the Anti-Defamation League of B'nai B'rith*, urging the AACP to exclude from consideration as a meeting place any hotel or resort which erects racial or religious barriers. The Secretary was instructed to make suitable reply indicating the position of the Association.

l. *From Dr. Edward C. Elliott and family*, expressing appreciation for the note sent at the time of the death of Mrs. Elliott.

2. *Credentials Committee*. The Chairman announced the appointment of George L. Webster, Chairman, and Edward C. Reif to the Credentials Committee.

3. *Reports and addresses of the officers and the Editor.*

Pursuant to recommendations of the Executive Committee of last August, the President, the President Elect, and the Chairman had consulted concerning subject matter of their respective annual presentations and had agreed on general areas to be covered by each. Each had also provided a short resume for the press of the principle points in his presentation. The three papers were considered by the Executive Committee and general approval expressed of the manner in which the various topics were handled. The Editor likewise briefly outlined his report. On motion Hiner-Webster, *it was voted* to receive the presentations of the three officers and of the Editor. The interim report of the Secretary-Treasurer covering the eight months ended March 31, 1955, and including financial statement for this period, was read. On motion Christian-Webster, *it was voted* to receive the report.

4. *Report of the Committee on Administrative Procedures,*

George L. Webster. This carefully prepared report was read in its entirety and was subjected to constructive criticism which resulted in a number of minor changes. Together with the report of the Committee on Committees rendered last year, it constitutes a blueprint governing the administrative activities of the officers and defining the general duties of the various types of committees. On motion Burt-Reif, *it was voted* to instruct the Chairman to recommend its adoption by the Association as an Officer's Manual; and to instruct the Secretary to order 200 reprints at the time of publication in the JOURNAL for distribution to member colleges and for guidance of future officers, each copy to indicate official approval if adopted by the Association. (This recommendation was subsequently approved by the Association).

5. *Report of the Subcommittee on Sources of Federal Funds*

*for continuing Education,* Roy A. Bowers. This complete and lengthy report (item 18, minutes of the 1955 Interim Meeting) deals with the activities of the AACP re extension programs, federal funds for such programs, and opinions of member colleges concerning them. In general, federal funds are not available for the in-service activities of member col-

leges, and the Subcommittee made no specific recommendations. On motion Webster-Burt, *it was voted* to request the editor to publish the report in the JOURNAL, and to instruct the Secretary to send a copy of the report to District No. 4 from which suggestion for the study originated.

Chairman Zopf indicated he did not consider this to be a closed matter and that continued study of federal legislation especially as sponsored by the National University Extension Association would be followed. (Subsequently the Association approved Resolution 12, recommending appointment of a special Committee on Continuation Study, and the President stated the report described here would be brought to the attention of this Committee).

6. *Subcommittee on Recruitment Aids*, R. A. Deno. The Chairman of this Subcommittee outlined results of the meeting of the Subcommittee in New York City on April 15-16, 1955. This meeting was devoted chiefly to interviews with film producers and resulted in selection of Lloyd E. Young, Film Productions International, Hollywood, California, as the producer of the two films and one filmstrip approved by the Subcommittee. Reference is made to the report of President Burt in which he outlines general approval by the AFPE of the \$100,000 recruitment aid project of the Association, with allocation prior to this Fall of \$55,000 for production of the two films and the filmstrip. It is anticipated these items will be completed before our next annual meeting. The Subcommittee will meet in Ann Arbor on June 3 and 4, at which time it will consider with the producer preliminary treatments for the three items.

Attention was directed to the likelihood of the inclusion of pharmacy in the national professional advertisements covering various careers and sponsored by the New York Life Insurance Company. The pharmacy advertisement will probably appear in the Fall and we anticipate it will be made available in booklet form, supplementary to other recruitment activities of the Association. Renewal of the project undertaken last year by Mr. Robert A. Hardt, President, American Pharma-

ceutical Manufacturers Association, wherein a letter was sent to physicians offering to supply *Shall I Study Pharmacy* to any interested student, was outlined.

Also reported was a financial reckoning for the first edition of 70,700 copies of the brochure. Precise records are available on printing costs and costs of mailing in lots of 100 or more. Estimates only can be made for the additional expenses incurred by the Secretary-Treasurer's office as a result of the brochure. The Association is approximately reimbursed for expenses incurred in production of the first edition.

President Burt recommends in his address that the Subcommittee on Recruitment Aids be designated a continuing Committee on Recruitment Aids. On motion Hiner-Christian, *it was voted* to request the incoming President to so designate the Committee in order that they will report directly to the Association.

7. *Report of the Subcommittee on Future of the JOURNAL*, George L. Webster. Reference is made to item 11, minutes of the 1955 Interim meeting. Deans of member colleges were requested to submit nominations for Editor of the JOURNAL. The Subcommittee reported 18 names had been suggested by deans or by members of the Executive Committee. A number of the nominees were invited to present their views concerning the JOURNAL, and to indicate whether or not they wished to be considered for the post. Consensus of the Subcommittee was the position of Editor should be offered to Dr. Melvin R. Gibson, Associate Professor of Pharmacognosy, State College of Washington, effective January 1, 1956. On motion Webster-Bowers, *it was voted* to approve the recommendation of the Subcommittee and to invite Dr. Gibson to assume the post of Editor at the end of the current calendar year "for one year or until his successor is elected and installed" as provided in the Constitution.

The Editor, the Chairman, and the Secretary-Treasurer who currently constitute the Publications Committee all indicated they will work closely with the Editor elect during the

remaining months of the calendar year to help him prepare for assuming the responsibilities of the editorship. The Chairman stated the contract for printing the JOURNAL will expire with the Fall number and that he would take steps early next September to secure bids for Volume XX from the current printer and from other printers.

8. *In recognition of the services of Dr. Lyman.* On motion Webster-Tice, *it was voted* to recommend the following to the Association:

WHEREAS, Dr. Rufus A. Lyman has served as Editor of the AMERICAN JOURNAL OF PHARMACEUTICAL EDUCATION for many years and has an unequalled understanding of its problems, and

WHEREAS, Dr. Lyman has asked that he be relieved of the full responsibilities as Editor of the Journal,

BE IT RESOLVED, that the Association authorize the appointment of Dr. Lyman by the Executive Committee as Consulting Editor of the JOURNAL for an indefinite tenure and with an annual honorarium considered appropriate by the Executive Committee. (The Association subsequently unanimously approved this resolution, and on motion Burt-Christian, *it was voted* to include honorarium in the 1955-56 budget).

On motion Webster-Hiner, *it was voted* (at the post-session meeting) to request Dr. Lyman as Consulting Editor to attend all meetings of the Executive Committee with expenses paid by the Association.

On Motion Webster-Tice, *it was voted* to recommend the following to the Association:

WHEREAS, Dr. Rufus A. Lyman has served the cause of pharmaceutical education and this Association to a degree matched by few in its history, and continues in his dedication and service to the Association,

BE IT RESOLVED, that the American Association of Colleges of Pharmacy confer on Dr. Lyman Honorary Membership in the Association, this is its highest honor, and was given

to only one other person in its history. (The Association subsequently unanimously approved this resolution. Following this action by the Association, the Executive Committee requested the President formally to notify Editor Lyman, and the Secretary-treasurer was instructed to provide a suitable plaque commemorizing this action).

9. *Additional JOURNAL policies.* At the suggestion of Editor Lyman, there was discussion of disposition to be made of the files of back numbers of the JOURNAL now in his office. It was suggested these should be available from the Secretary who is also Business Manager of the JOURNAL. Consensus was the Publications Committee should study the problem and make suggestions to the Executive Committee at the next Interim Meeting.

There was also discussion of the lack of desirability, solely as a matter of policy, of having any representative of the Association more or less permanently a member of the Executive Committee (see also item 1e, these minutes). Consensus was this policy was not desirable, although it was clearly recognized that the Editor must be in close touch with all Association matters, including deliberations of the Executive Committee. On motion Burt-Hiner, *it was voted* to request the Committee on Constitution and By-Laws to provide rewording of Article VIII of the Constitution to provide for elimination of the Editor as a member of the Executive Committee, this subsequently to be submitted to member colleges through regular channels. Consensus of the Executive Committee was the Editor should be requested to attend meetings of the Executive Committee as an observer, at the expense of the Association.

10. *Activities of the Association.* The report of the Committee on Committees outlines in general terms functions and duties of the various committees of the Association. In addition to this outline, not infrequently special assignments arise as a result of correspondence from deans of member colleges and staff members, and by request of the Executive Committee. The President Elect indicated he will bring such spe-



cial assignments as are known to him to the attention of the various committees at the time these committees are appointed. Included among important assignments currently before the Association are:

*a. Future enrollment problems.* Need was emphasized for re-examination of the manpower situation in pharmacy and of the replacement figure recommended by the pharmaceutical survey and followed by the Secretary of the NABP and other authorities in their estimates of manpower needs. Closely related to this problem is the matter of future enrollment estimates of member colleges, and the expansibility of member colleges to meet these estimates. Since none of the existing committees of the Association appears to be constituted to accept the responsibility of such studies, the President Elect indicated he would name a special Committee on Future Enrollment Problems, and that he would not limit appointees to individuals within the member colleges.

*b. Graduate education.* Reference is made to item 27, 3rd paragraph, of the 1955 Interim meeting, concerned with recommendations regarding factual study of the current status of graduate pharmaceutical education. Reference is also made to the August, 1954 report of the Subcommittee on Graduate Education, Lloyd M. Parks, Chairman, which outlined results of preliminary studies. Consensus was extension of this study should be undertaken by a special Committee to Study Graduate Education in Pharmacy. Finally, reference is made to resolution 14, recommending such comprehensive study.

(At the Post-Session Meeting, on motion Burt-Orr, *it was voted* to request the President to appoint such a special committee and to request it to undertake factual study of the current status of graduate pharmaceutical education, to suggest proper Association action aimed at improvement of graduate instruction in member colleges, and to report to the Association at the 1956 Annual Meeting. The President Elect had earlier indicated he would appoint Dr. John E. Christian Chairman of this Committee. At the Post-Session Meeting, Dr. Christian reported briefly that it appeared to him the Com-



mittee might properly investigate such phases of graduate pharmaceutical instruction as: (1) earlier literature and actions; (2) current status; (3) opinions of personnel in the field; (4) impact of extended program; (5) recommendations on physical and personnel needs; (6) future manpower needs for degree recipients; (7) possible evaluation procedures; (8) public relations; (9) cooperation with Section of Teachers of Graduate Instruction; (10) liaison with ACPE. Such ambitious and worth-while approach will require relatively long-range planning and study).

*c. Admissions procedures.* Importance of providing satisfactory pharmacy aptitude tests and of study and recommendations concerning admissions procedures in general was emphasized (see item 1d, these minutes). These activities appear to fall within the province of the Committee on Predictive and Achievement Tests. The incoming President was requested to outline the problems in this area to the 1955-56 Chairman of this Committee, to request the Committee to study the problems and report to the Association at the 1956 Annual Meeting. (Subsequently, provision was made in the budget for a meeting of this Committee.)

(Four resolutions were presented to the Association by the 1954-55 Committee on Predictive and Achievement Tests. All were referred to the Executive Committee. At the Post-Session Meeting the following decisions were made relative to these resolutions: No. 21, three-year term for Chairman: at variance with recommendations in Report of Committee on Committees; on motion Bliven-Hewitt, *it was voted* to call the attention of the Presidents for the next three years to the resolution without implying endorsement of it by the Executive Committee. No. 22: see item 10d, these minutes. No. 23, two specialists in testing to be added to the Committee: consensus was such experts are available for consultation in parent institutions of many member colleges. The President indicated he will direct attention of the new Chairman and members of this Committee to the desirability of conferring with such experts as may be available on their campuses. No. 24, investigation of administration and financing of predictive

and of achievement tests: see item 10d, these minutes, re achievements tests. Discussion of predictive tests deferred until next Interim Meeting).

*d. Achievement tests for validation of credits.* The problem raised by the 1954-55 Committee on Predictive and Achievement Tests wherein need for achievement tests in chemistry, mathematics and biology at the sophomore level will become increasingly acute under the extended program was reviewed (resolution 22). The Executive Committee interprets "achievement tests" as used here to mean standard tests designed to validate credit transferred from non-pharmacy or from pharmacy colleges. With this interpretation, and with the prospects of more and more pharmacy students transferring into colleges of pharmacy with advanced standing, importance of such tests was clearly recognized. Consensus was this matter comes within the province of the Committee on Educational and Membership Standards. The incoming President indicated he would refer this problem to the 1955-56 Chairman of this Committee, with the request that careful study be made of existing tests available and that recommendations be made at the 1956 Annual Meeting.

*11. Program of the Committee on Public Relations in Pharmaceutical Education.* The activities of this Committee were discussed with special reference to the three issues of PRxChange distributed during the current year. Consensus was each member college should receive five copies of subsequent issues of this publication for distribution to interested staff members. The Secretary was directed to comply with this suggestion. (At the Post-Session Meeting, pursuant to the recommendations of resolution 25, the President stated his intention was to continue the Committee during 1955-56 as a joint committee with members from the ACPRA, and the Executive Committee approved the budgetary request).

*12. Segregation.* (item 22 of the 1955 Interim Meeting). In addition to the resolution adopted by the Executive Committee at its Interim Meeting and to be referred to the Association for action at the current Annual Meeting, data were

presented outlining the situation at one of our District Meetings this year at which representatives of a member college were barred by the hotel from attending meetings because of color. The President Elect stated he planned to present through the Resolutions Committee a recommendation requesting the Association to instruct its national and district officers "to hold all meetings of this Association and its Districts only at such places and under such circumstances that all members . . . are free to attend . . .".

The Executive Committee endorsed unanimously for presentation to the Association this second resolution dealing with discrimination. (Subsequently, both resolutions were adopted by the Association, resolutions 7 and 8).

*13. Reports on District Meetings.* District Meetings were held in only half of the eight Districts during 1954-55. Chairman Zopf represented the Association at District 1, President Elect Tice at Districts 4 and 5, and President Burt at District 6. Each of these officers reported on the meeting at which he represented the Association and the reports were ordered received. Consensus was visits to the Districts during the coming year should be divided among the President, President Elect, Chairman, and Secretary-Treasurer. No officer will serve officially in his own district, and details will be worked out among the officers as the times and places of the District Meetings become known.

*14. 1955 Teachers' Seminar.* The Chairman reported on the meeting of the 1955 Teachers' Seminar Committee, held in Indianapolis on April 1 and 2. Facilities for room and board at Butler University and for meeting rooms are excellent. Pursuant to suggestions from the Forum on Teachers' Seminars held last summer, the 1955 Seminar will be in the area of pharmacy. The pattern of presentation followed at Storrs will be adopted, and the final day of the Seminar will be devoted to graduate instruction in the area of pharmacy. The Committee has agreed that the tone of the Seminar will be informal as in the past and that no night meetings will be scheduled in order to permit informal exchange among semi-

narians. (The Chairman of the 1955 Committee subsequently posted the detailed program, including names of faculty members in so far as known on May 1).

15. *Membership by Canadian Faculties of Pharmacy in the AACP.* Reference is made to item 12, minutes of the 1955 Interim Meeting. As directed therein, the Secretary corresponded with Dean Daniel H. Murray, School of Pharmacy, The University of Buffalo; and Dean A. W. Matthews, Faculty of Pharmacy, The University of British Columbia, Chairman, Canadian Conference of Pharmaceutical Faculties. Both individuals expressed keen interest in the possibility of affiliated membership by Canadian Faculties of Pharmacy. President Elect Tice indicated he would name a special Committee on Affiliated Membership for Canadian Colleges to study details of such membership, to obtain further impressions from our Canadian colleagues, and to make recommendations to the Association at the 1956 Annual Meeting, with preliminary report to the next Interim Meeting of the Executive Committee. (Reference is made also to resolution 5, adopted by the Association and officially approving such affiliated membership).

16. *Continuation of Awards by the Committee on Audio-visual Education.* Consensus was the Executive Committee should be governed by the recommendations of the Committee on Audio-visual Education on continuation of the award for 1955-56. There was considerable discussion of the advisability, as a general policy, of establishing awards or prizes by the Association. This policy was seriously questioned by several members of the Executive Committee. On motion Hiner-Webster, *it was voted* to request the Committee on Audio-visual Education to carefully reconsider the advisability of continuing this award indefinitely in the light of the consensus of the Executive Committee against a policy of awards and prizes by the Association. It was suggested the Committee on Audio-visual Education might consider the advisability of channeling funds used for awards into such activities as provision of a central film, filmstrip and slide depository. (Subsequently, the Association voted to authorize renewal of the award for a period of three years, see resolution 9. At the Post-Session

Meeting, on motion Burt-Christian, *it was voted* to request the Committee to comply with the earlier request for careful re-evaluation of this part of its program at the expiration of the three-year period).

17. *Report from the Committee on Constitution and By-Laws.* The Executive Committee was advised of the completion of routing through channels of the recommendation to abolish the office of Vice President (reference, item 8, minutes, 1954 Post-Session Meeting). Attention of the Executive Committee was also directed to a minor inconsistency in the wording of Article VII of the Constitution which refers to "an annual address of the President" and Article 18 of the By-Laws which refers to the "President's Report". On motion Burt-Hiner, *it was voted* to request the Committee on Constitution and By-Laws to present to the Association the simple rewording required to designate the President's presentation, in Article 18 of the By-Laws, as an address. (This request was promptly carried out by the Committee, was presented to the Association, and was approved subsequently at the 1955 Annual Meeting).

A report of the Committee on Constitution and By-Laws to the Executive Committee and dealing with recommendations on degrees was received. Action on this matter had not been instituted in time for consideration at the 1955 Annual Meeting. On motion Webster-Bowers, *it was voted* to accept proposal No. 1 of the Committee for submission to member colleges through regular channels. It was pointed out this proposal gives the widest latitude to colleges with respect to degree or degrees granted while retaining requirement for granting a professional degree, and not including granting a master's degree for the extended program.

18. *Termination of Service on Executive Committee.* The Chairman expressed appreciation for the services rendered by Past President Reif, Dean Hiner and Professor Webster during their tenure as members of the Executive Committee.

A number of these minutes, items 5, 6, 7, 10, and 15 were considered under the general heading "long-range program".

This Annual Meeting occupied the morning, afternoon, and evening of April 29; and the morning of April 30. The meeting adjourned at 1:00 p.m., April 30.

R. A. DENO, *Secretary*

## **Minutes of the Post-Session Meeting Executive Committee**

Empress Hotel, Miami Beach, Florida

May 4, 1955

Chairman Zopf called the meeting to order at 9:00 a.m.

Present: Bliven, Bowers, Burt, Christian, Deno, Hewitt, Lyman, Orr, Tice, Zopf.

1. *Welcome to new members.* The Chairman welcomed the three recently-elected members: President Elect Hewitt, Dean Bliven and Dean Orr. He outlined the philosophy and procedures currently prevailing in the Executive Committee and urged each of the new members to participate freely in the deliberations of the Committee.

2. *Resolutions referred to the Executive Committee.* The following resolutions were referred at the 1955 Annual Meeting to the Executive Committee for consideration:

a. *No. 1, on personnel roster.* The Secretary reported preliminary work has been done on revision of the 1954 report of the Committee on Personnel Problems. Records have been revised from all data currently available in his office and in the office of the Secretary of the ACPE. He stated during the summer these data would be prepared in form suitable for checking by deans of member colleges. Mailing will take place early in September, at which time each dean will be requested to correct and return data sheets for his college before October 1. If this is done, the Secretary should be able to furnish a revised roster about November 1.



b. *No. 2, on placement bureau.* Consideration of establishment of such bureau was deferred until the next Interim Meeting.

c. *No. 11, on central film depository.* This resolution provides for "A thorough study to find means by which a central film depository can be set up . . .". The Secretary was instructed to request the Chairman of the Committee on Audiovisual Aids through his Committee to provide outline of a workable plan and estimate of annual cost of operation for such depository. If possible, report should be made to the Executive Committee through the Secretary at its next Interim Meeting.

d. *No. 14, on study of status of graduate education.* Reference is made to item 10b, Minutes of 1955 Annual Meeting of the Executive Committee.

e. *No. 17, on a refresher conference in pharmacy librarianship.* Consideration deferred until the next Interim Meeting.

f. *No. 20, on publication in the JOURNAL of the report of the M.L.A. entitled "Books, Reference Works and Periodical Literature recommended for College of Pharmacy Libraries".* This resolution was referred to the Editor but he directed attention of the Executive Committee to the value of this report. On motion Tice-Christian, *it was voted* to request the Editor to publish this report in the Fall issue of the *JOURNAL*, and to instruct the Secretary to order sufficient reprints to provide two for each college and a small reserve in the Secretary's office.

g. *No. 21, on appointment of Chairman, Committee on Predictive and Achievement Tests for three-year term.* Reference is made to item 10c, Minutes of the 1955 Annual Meeting of the Executive Committee.

h. *No. 22, on development of achievement tests at the sophomore level.* Ibid, item 10d.

i. *No. 23, on addition of specialists to Committee on Predictive and Achievement Tests.* Ibid, item 10c.



j. No. 24, on financing achievement tests, on a trial basis. Ibid, item 10c.

k. No. 25, on continuation of and budget for the Joint Committee on Public Relations. Ibid, item 11.

3. *1955-1956 Interim Meeting.* Because the next Annual Meeting of the Association is to be held April 8-10, 1956, a January Interim Meeting is not feasible. Desirability of a January meeting in Chicago is clearly recognized because of the opportunity given for a half-day joint meeting with the ACPE. After discussion, this desirability notwithstanding, consensus was the next Interim Meeting should be scheduled late in October or early in November with decision on dates to be made early in September. Invitation was extended to meet in Ann Arbor and this invitation was favorably considered. The Secretary was instructed to notify the Secretary of the ACPE concerning this action and to ask him if possibility existed for a meeting of the Council next Fall in order that a joint meeting could be arranged in Ann Arbor, in Chicago, or elsewhere. In the event such joint meeting cannot be arranged, consensus was the President, the Chairman, and the Secretary-Treasurer should arrange to meet with the Council in Chicago in January, in the event the Council believed such joint meeting of representatives of our Executive Committee with them was desirable.

4. *1956 Annual Meeting of the Association and of the Executive Committee.* The next Annual Meeting of the Association will be held on April 8-10 in Detroit, Michigan. Consideration was given to the possibility of starting a day or two earlier, but consensus was further refinement of the program of the Annual Meeting would enable us to accomplish almost as much in a two and one-half day period and would be more satisfactory to delegates and representatives. The next Annual Meeting of the Executive Committee, therefore, will doubtless be scheduled for Friday and Saturday April 6 and 7 with a Post-Session Meeting scheduled for April 11.

5. *Attendance at the 1955 Annual Meeting.* The Secretary reported that 73 member colleges were represented at

Miami Beach by 203 delegates and representatives, as reported on roster sheets. These data correspond to 96 per cent of our member colleges, and 2.7 persons per member college. The Secretary was asked to tabulate attendance at the Annual Meetings of the past 10 years for comparison, and to include such tabulation in these minutes. The data requested are as follows:

Time (1st Day)	Place	Total Memb. Coll.	Memb. Coll. Present	Per Cent Pres.	No. Del. & Repres.	Del. & Repres. Per Coll.
8/25/46	Pittsburgh	62	59	95	162	2.6
8/24/47	Milwaukee	63	61	97	207	3.3
8/8/48	San. Fran.	64	52	81	135	2.1
4/24/29	Jacksonville	64	60	94	156	2.4
4/29/50	Atlantic Cy.	63	63	100	167	2.7
8/26/51	Buffalo	63	63	100	166	2.7
8/21/52	Phila.	68	67	98	236	3.5
8/16/53	Salt Lake C.	75	70	93	191	2.5
8/22/54	Boston	75	74	99	288	3.8
5/1/55	Miami Beach	76	73	96	203	2.7
	Mean			95.3		2.8
	Median			96.5		2.7

The President reported registration by students for the meetings of the Student Branches was larger than at any previous convention of the APhA.

6. *Appointment of Delegates and Representatives.* After asking for opinions of members of the Executive Committee, the Chairman indicated he would appoint Dean Bliven, 1961, delegate to the ACE; and that he would rearrange the status of the various delegates as follows: Dean Sprowls, 1957, Voting Delegate; Dean Kaufman, 1960, First Alternate; Dean Bliven, 1961, Second Alternate; Secretary Deno, 1958, Voting Delegate; Dean Muldoon, 1956, First Alternate; Dean O'Brien, 1959, Second Alternate. He indicated further he would name President L. F. Tice as Representative to the NDTC, and that appointment of the Representative to the NWDA would be left in the hands of President Tice.

7. *Revision of 1954-1955 budget.* The Secretary-Treasurer directed attention to two changes in receipts in the cur-

rent budget: reduction of \$1,000 in the grant for the 1955 Seminar; and addition of \$20,000 from the A.F.P.E. representing the first installment in support of the recruitment aids program. Net result is an increase in receipts of \$19,000.

He directed attention to three changes in disbursements: decrease in Seminar, item 7, of \$1,000; increase in item 9 for recruitment aids, including brochure, of \$20,000; absence of provision for the expenses of a second annual meeting during the current fiscal year.

On motion Burt-Lyman, it was voted to revise the figures for receipts in the two items indicated, with a net increase of \$19,000; and to revise items 7 and 9 of the disbursements as indicated, with a net increase of \$19,000, and to authorize additional withdrawal from cash balance if necessary to cover any deficit up to the additional expenses of the second Annual Meeting during the current fiscal year. On motion Burt-Hiner, *it was voted* to authorize payment of per diem of \$25.00 per day for each additional day of attendance required of members of the Executive Committee whose expenses are not paid for attendance at the Annual Meeting.

8. *1955-'56 budget.* The Chairman and the Secretary-Treasurer presented details of the budget for 1955-56, with the principle addition in receipts consisting of the second installment (\$35,000) from the A.F.P.E in support of the recruitment aid program. The Secretary recommended carrying in the receipts any unexpended balance remaining on August 1 from the first recruitment aid appropriation of \$20,000. This unexpended balance is expected to be in the neighborhood of \$13,000 to \$14,000. On motion Tice-Christian, *it was voted* to approve the budget for 1955-56 as outlined to members of the Executive Committee (subsequently furnished members of the Executive Committee and attached to original copy, these minutes).

9. *Financial report on Joint Dinner.* The Secretary-Treasurer reported on the finances of the Joint Dinner held at Miami Beach on May 2. Since this was a cash transaction, it will not appear in the financial statement of the Associa-

tion. Guests in attendance at the dinner Numbered 245 and 251 tickets had been sold. As a consequence, incidental expenses of \$50.00 were reduced to a net cost to the Association of \$20.00. This informal report was ordered received and will constitute the only report concerning the finances of the dinner.

*10. Status of Fund for the Study of Pharmacy.* The Secretary-Treasurer inquired concerning the possibility of eliminating the savings account carried in the Fund for the Study of Pharmacy, and also concerning the possibility of merging the reserves of this Fund with the general reserves of the Association. He was directed to examine the record of the history of the Fund for the Study of Pharmacy, and to make recommendations to the Executive Committee at the next Interim Meeting.

The meeting adjourned at 12:15 p.m.

R. A. DENO, *Secretary*

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## New in the Family

**David Kennedy Peterson.**—Born April 10, 1955, son of Dr. and Mrs. Charles F. Peterson, University of Kansas.

**Robert Bruce Beal.**—Born March 20, 1955, son and fourth child of Dr. and Mrs. H. M. Beal, University of Florida.

**Joseph Richard Kederasha.**—Born June 9, 1955, first son and second child of Prof. and Mrs. Richard G. Kederasha, Rutgers University.

**Margaret Alice Riedesel.**—Born February 15, 1955, daughter of Dr. and Mrs. C. C. Riedesel, Idaho State College.

## **The Editor's Section**

The second annual meeting of the second century of organized pharmacy in America is now history. Much has been said in the pharmaceutical press about the marvelous Miami Beach area and the display of elegance within and without the Hotel Fontainebleau and the entertainment features provided there. Nevertheless it is evident that the fabulous hotel was not built as a meeting place for conventions but rather for the entertainment of people seeking pleasure outside of the home town and having means to pay for it. A hotel that cannot provide numerous rooms for committee and various sectional meetings of a national organization and its affiliated societies, is not the best type of meeting place for an annual convention.

Furthermore, the prices in a resort hotel, even at summer rates, are not in keeping with the salaries educators receive the country over. Some one had told me the summer prices in the headquarters hotel ranged from \$14 to \$250 a day per room for single occupancy. I, inadvertently, repeated this gossip to a friend in the lobby, not knowing a doorman was within hearing distance until he turned on me with some heat and said, "Mister you were misinformed. The most expensive room in this hotel is only \$175." All I could say was, 'Brother, so far as I am concerned there is no difference between \$175 and \$250 for a room. They are both out of this world.'

I am writing this because in recent years we have been very much concerned about the cost of attending conventions, the time and place of meeting, and the effect of these on convention attendance. It would weaken the position of professional pharmacy if the meetings of those units which make it strong, were not held at the same time and place. The chief factors which prevent educators from attending national conventions is time and place and cost, and of the three the most important is the economic one.

In spite of the many attractions and distractions which Miami Beach had to offer, the 1955 convention of the APhA

and the affiliated organizations was one of the best ever, when measured by the attendance, the spirit manifested, and the accomplishments attained. These facts in themselves are the best evidence of the solidarity of American Pharmacy, and the best proof that the objectives of the organizations, for which they were created, is their major concern and the entertainment features are of secondary importance.

In the presidential address delivered before the American Conference of Pharmaceutical Faculties in Indianapolis in 1917, I offered a recommendation that the name of the organization be changed to "The American Association of School (or Colleges) of Pharmacy." The stimulus that gave rise to the recommendation was a question put to me annually by the Chancellor of my university when I requested funds to attend the annual meeting of the Conference. He always asked me what that thing was. The Chancellor was an organic chemist and educator of note and a very intelligent man. Then it was that I realized, in making requests from the administration, I should use a language that the administration understood. If one administrator did not comprehend the meaning of the word "Conference," there were probably other administrators that were likewise confused. The recommendation met with severe opposition. The opposers maintained that the organization should be a conference of faculty members only, and that labeling it as an "association" might infer a legal status that the word "conference" did not imply. It took the best part of seven years of heated debate before this recommendation was finally approved and the conference became an association. To the present day educator this may seem to be a trifling problem. It is no more so than the one which we have before us now when we insist on calling one or two years of general college work for the entrance to the professional course in pharmacy, a five or six year professional course in pharmacy. One of the characteristics of pharmaceutical educators is to use a language that retail pharmacists do not understand and this is largely responsible for the opposition which the increased entrance requirements



have met in the retail field. I had to agree with a former student of mine when he once said that pharmaceutical educators seem to be a "slow lot." That is the result of not clearly defining our objectives and using a language our clientele does not understand.

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Well do I remember that in the early years of the century the sixty-four dollar question (that of course was before the sixty-four dollar question was given birth) was, "How old is Ann?" This question, whether of any importance or not, intrigued the nation. Another one, covering a more limited area, but of greater concern to pharmacists, was, "What is the matter with Pharmacy?"

To one, trained in a field related to pharmacy and who, because of local circumstances, had found himself placed in a pharmaceutical atmosphere, it was evident that one of the major difficulties was that pharmaceutical educators were living by themselves. The university administration and the other professional schools and the general college, knew little about the problems and the objectives of the college of pharmacy or the opportunities of various kinds in the vast and ever expanding pharmaceutical field. To overcome this the Association decided to invite some scholar or administrator outside the pharmaceutical area to meet with us and be a guest speaker at our annual meeting. We thought that our objectives might be better understood by such a contact. This suggestion also met with considerable opposition. The question was raised, "What would such a man know about pharmacy?" The opposition had missed the very point intended to be gained by such a program, namely, to learn each others' problems and to gain a sympathetic understanding between educators and administrators as a whole. But finally the idea prevailed, and the first guest speaker was the distinguished lawyer, Newton D. Baker, at the Cleveland, Ohio, meeting in 1922. Mr. Baker had returned to the private practice of his profession after having served as Secretary of War in the Wilson administration. After the war was over he had been responsible for establishing the American Uni-



versity in France for the benefit of 4,000,000 American soldiers who were unable to come home immediately because the number of boats available was limited. After Mr. Baker's lecture was over, those who had opposed the program the most vigorously said that speech was, in itself, worth coming to the annual meeting to hear. They had discovered that an outsider had a wider conception of the mission of pharmacy than they themselves had. The guest speaker policy has been continued through the years and the lecture before the joint dinner of Boards and Colleges has become one of the most inspiring and fruitful numbers on the program.

There has been a similar lack of contact between pharmaceutical educators and those engaged in pharmaceutical industry. While the latter have done much for pharmaceutical education, it was felt that there should be a closer personal relation with representatives of industry. Fortunately, this year, the Colleges asked Mr. Robert A. Hardt, Vice President of Hoffman La Roche, Inc., and President of the American Pharmaceutical Manufacturers' Association, to be the guest speaker at the Miami Beach meeting. He spoke on the topic, "Pharmacy Is Worth Fighting For." The address was both a delight and an inspiration. As I attempted to pay tribute to Mr. Hardt in these pages, for the service he had rendered and is rendering for a mutual understanding of the relation of education to industry, a tribute to him in the form of a resolution came to me. It was passed at the annual meeting of the American Pharmaceutical Manufacturers' Association in June, 1955, and it fits our own case so well that I quote it verbatim:

Whereas our beloved friend, Robert A. Hardt, for many years has brightened the meetings of this Association by his gracious words and actions and his keen and kindly humor; and

Whereas, his wise counsel had guided the actions of this Association on many important issues affecting the manufacturing drug industry throughout the years; and

Whereas, Mr. Hardt has served the members of this Association in many important capacities, culminating in his unanimous election as president of this Association for the term which will expire with the close of this meeting;

Now therefore be it resolved that the members of the American Pharmaceutical Manufacturers' Association in convention assembled at White Sulphur Springs, West Virginia, this 8th day of June, 1955, do hereby give testimony, unanimously and publicly, of their sincere appreciation for the fine contributions, wise counsels and outstanding leadership which Robert A. Hardt has given to this Association and to the drug industry during his term of office as President of this Association and throughout the prior years of his active participation in its affairs, and do hereby extend to him, on the occasion of his retirement from office, this acknowledgement of their gratitude for his valuable service to this Association and the drug industry and this expression of their deep affection for him and their good wishes for his continued health, happiness and success.

I am sure I make no mistake when I say that the members of the American Association of Colleges of Pharmacy hold, and wish to express, these same sentiments as our very own, and assure Mr. Hardt that we are most grateful for the contribution he is making to pharmaceutical education in declaring the objectives of pharmaceutical education and pharmaceutical industry to be mutual.

One of the great commencement addresses of the 1955 season was delivered before an assembled multitude and the graduating class at the University of Nebraska on June 13, 1955. The title of the address was, "Between Ourselves; Old Notes and New Counter Notes." The speaker was none other than our own beloved Dr. Edward C. Elliott of lasting pharmaceutical fame. The occasion was the sixtieth anniversary of Dr. Elliott's graduation from the University of Nebraska with the bachelor's degree. The address was delivered in the inimitable Elliottonian style, charged with good humor, good common sense, the soundest kind of philosophy and with the enthusiasm that Dr. Elliott puts into everything he does, whether he likes the job or not. In fact he once told me that if he knew he was going to hell, he would do it with enthusiasm. That is one of the great lessons we should learn from Dr. Elliott's life. If we who teach and those who practice pharmacy possessed that brand of enthusiasm, pharmacy would be revolutionized in one generation.

Dr. Elliott's active educational and administrative work covered a period of six decades and the end is not yet. As he approached the heart of his address he declared, "It is not my intention to engage in any oratorical adventure, to moralize as to individuals and events of the dim past, nor to serve as a crusading Utopian. Rather I would briefly, and I trust, realistically speak about ourselves of the present . . . representatives of the greatest social experiment of the American people . . . the system of so-called free higher and professional education—this offspring of democratic idealism of human justice and of human opportunity." And that is exactly what he did.

I plead with Dr. Elliott to permit me to publish the unexpurgated address in our Journal, but he felt it was hardly suitable for publication since he wrote it for a very special group. But it fits the needs of any and every group and I trust by the time preparation of the Fall number of the Journal is begun, I will have won his consent to print it. If he does not give it, our group will have lost much. If he gives it there lies a great treat ahead, a greater realization of our responsibilities and our opportunities and a great stimulus for us to carry on.

At the close of the address Doctor Elliott was presented a plaque bearing the following legend and the seal of the University:

IN TOKEN OF ITS SINCERE APPRECIATION  
OF HIS DEVOTION TO THE CAUSE OF  
HIGHER LEARNING AND IN RECOGNITION  
OF HIS ACHIEVEMENT IN ITS SERVICE

**THE UNIVERSITY OF NEBRASKA**

PRESENTS THIS PLAQUE TO

**EDWARD C. ELLIOTT**

DISTINGUISHED ALUMNUS

PRESIDENT EMERITUS PURDUE UNIVERSITY

COMMENCEMENT SPEAKER

JUNE 13, 1955

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Word has just been received of the passing of Mrs. Mary Lavina Washburn, the wife of Dean Emeritus Homer C. Washburn, who was Dean of the College of Pharmacy of the University of Colorado for many years. Mrs. Washburn died on May 12, 1955 in Oxford, California and was buried on May 16, in the Santa Barbara Cemetery. The family home, since Dean Washburn's retirement, has been 3103 Argonne Circle, Santa Barbara, California. We can assure Dean Washburn that he has the sincerest sympathy of a great number of friends with whom he labored through many years, and with him we share the hope of the future.

RUFUS A. LYMAN

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**A Guide to the Use of the Pharmacy Library**, by Mrs. Emelie P. Dale, Librarian Brooklyn College of Pharmacy. 1954. Thirty-two removable pages with flexible cover. Available "gratis" to any institution for library use.

The Guide contains a Foreword; Library Regulations; Glossary; Collections in the Library; the Classification System; Reference sources, including abstract journals, basic reference books and periodicals, card catalog, indexes, review journals; Library Research Techniques; Research Composition (thesis writing); and Index. The librarian not only makes the Guide available to all students but presents to small groups of freshmen students a lecture on the Guide and its value; this is repeated when they are seniors. Lectures are given also on the specific use of Chemical, Biological, and Medical Abstracts.

While Mrs. Dale prepared the Guide for the use of the College Library, she has cut a pattern which can be adapted to any pharmacy library to advantage. Too often we have thrown the library at the student or cast the student into the library with the admonition to "browse". We believe in permitting students to "browse". It is an interesting procedure and he may discover many exciting and stimulating sources of broadening his outlook. But when he has some special problem he wishes to investigate, a method of procedure becomes a necessity. Mrs. Dale has made a real contribution to the use of the library as an educational tool. Dean Schaefer is ready to grant permission to copy and duplicate the Guide if proper recognition is granted the author and the institution. He feels it would not be proper to commercially promote the Guide and yet realizes that its use should be available to all.—R.A.L.

## **Gleanings from the Editor's Mail**

(Note: The following letter is published at the request of President L. F. Tice.—Ed.)

Dean Linwood F. Tice  
Philadelphia College of  
Pharmacy and Science  
Philadelphia, Pa.

Washington, D. C.  
March 29, 1955

Dear Dean Tice:

I wish to thank you for your letter of February 22 pertaining to Item 22 of the January Meeting of the Executive Committee. I think I have thought the matter through thoroughly and the conclusions which I have reached are being conveyed to you for your further consideration and judgment. At the outset, let me say that I think the resolution is a step forward and moves in the right direction. I can readily agree with the preliminary statement of Item 22 with respect to the interpretation of the Executive Committee. I have grave doubts, however, as to its applicability as it relates to the Association as a whole. It is my belief that the thinking in this matter falls into three categories, namely, (a) those who know the real issue; (b) those who understand the issue and are not affected one way or another; and (c) those who do not understand the issue.

I assure you that my present concern has to do with the status of the Association; the issue of segregation has been settled. I do not believe the Association will go any farther in considering the practice of recognizing schools which, in my already expressed opinion, have been designed to circumvent the Supreme Court Decision than is indicated in the proposed statement (Item 22). I do feel it in order here to suggest what I would judge to be an even more positive and less compromising position:

"No school which follows a policy of excluding or segregating qualified applicants or students on the basis of race or color shall be qualified to be admitted to membership in the Association."

Such a statement would, indeed, be opposed by a large segment of the Association. For its effective application, therefore, it would have to be put in the form of an amendment to the Constitution and By-Laws. While I do not care to make such a proposal at this time, I want you to know my reasoning in support of such an expression.

The right of persons of all races to unsegregated and non-discriminatory education in all public schools has been designated by the

Supreme Court as a Federally-protected right. This right, as are all other such Federally-guaranteed rights, is enforceable under the Federal criminal code. It should require no argument to support the proposition that no public institution (whether designated as white or non-white) which is engaged in flaunting the Constitution of the United States could or should be regarded as fit to be a member of this or of any other professional and scientific association. To insist that its members obey the law is the minimum that this Association can do with respectability. Moreover, the decisions of the Court regarding segregation and discrimination in public schools and universities are not based on technical grounds; they are based on precise principles of morality and democracy. Now that these principles have been established within the framework of education by virtue of Federal Ruling, in so far as these rulings apply, state schools are under legal and moral compulsion to conform. As to its moral aspects, it is equally binding to non-state schools as well.

It is clear that one of the purposes of the Association is the improvement of the pharmaceutical profession. Such improvement inevitably involves concern for pharmaceutical education. It does not require argument to show that, in some instances, admission of Negroes to certain white pharmacy schools, as over against schools to which they would be committed on racial lines, would result in improvement of their pharmaceutical education and so enhance their value to the profession. I am reasonably certain that the separate colleges of pharmacy specifically for Negroes are not as good as the corresponding white schools. Also, when Negroes are cut off from association in schools belonging to that segment of the population which enjoys superior advantages, they can scarcely be thought to be equally prepared for the profession. And ideally the Negro pharmacist is not limited to the service of one race but all races. Certainly the maintenance of different colleges for the two races in a given state will be a substantial burden on educational budgets which cannot well sustain this burden, and will thus tend to hold back pharmaceutical education and preparation throughout a state. Even where Negroes may be admitted to state schools, denial of admission to private schools sets up a substantial economic barrier to pharmaceutical education for those who must live and work at home in communities adjacent to private schools. Nor can pharmaceutical education be considered apart from the whole cultural and social background of the student. Education in colleges of pharmacy should, like all education, be concerned with inculcating the highest moral and ethical ideals.

In this regard, the schools must prepare students for living in an integrated society. We must keep in mind that we are not training our men for the past half century, but for a vastly different world. Those we are now training will be the leaders in the 1980's.



In so far as some schools are unwilling to perform this minimum task they are not worthy. Thus, the right to an equal opportunity for education regardless of race or color is of especial importance to professional schools which should be dedicated to the ideal of equal justice under the law and whose graduates furnish, or should furnish, a large proportion of the public and professional leadership in our population. The fundamental character of this right has been affirmed by the Supreme Court of the United States. And, although its decisions have not been extended to private schools, the principles the Court has acclaimed are not irrelevant to the purposes of the Association. Since the association confers substantial benefits on the private colleges included in its membership, a policy of continued indifference to a program of discrimination by the Association would contribute to the maintenance of that program and implicate its non-discriminating members in a program to which the majority of the membership is clearly opposed. Further, the Association's tolerance of segregation could and would be used as signifying approval and thus as a basis for the continuation of an immoral and illegal course of conduct. Any school which encourages such attitudes could hardly be said to be inculcating even minimal standards of decent professional ideals.

I hope that you have not been bored with the above reasoning, and that the arguments presented clarify my position on this issue. Permit me to thank you for the privilege of this communication. It is doubtful that I shall pursue the matter further. I have raised the question in good faith, thereby affording the Association an opportunity to face what seems to me a real issue.

With best wishes and kindest personal regards, I am

Howard University  
College of Pharmacy

Sincerely yours,  
Chauncey I. Cooper  
Dean

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(Note: The letter which follows is published at the request of the Committee on Curriculum.—Ed.)

December 20, 1954

To the Committee on Curriculum:

I am pleased that the Committee on Curriculum is seriously considering how the schools can best help to create "a professional attitude and a sense of professional ethics" in pharmacy students. We are agreed, I think, on how important this is for turning out what we call "good pharmacists." And it is a little too simple to say that ethics have to be "caught rather than taught," or to assume that there is nothing worth while a school can do because the student's character already has been formed before he enters college. These appear to be



rather popular ideas (containing a germ of truth), which I would infer have to be countered, if any recommendations by your Committee are to gain wide acceptance. The idea that most students will become sensitized to the ethical issues and obligations after they get into practice probably seems sufficiently hopeless to most educators that it need not be taken into account.

What then can we do? I gladly offer a few comments or suggestions on that, as you request.

In general I agree with Blauch and Webster (pp. 163-4), but I wish they had divorced the subject of public relations and professional relations (in the sense of favorable personal relations and attitudes) from the subject of ethical relations. There is an important distinction to be made. Just because these two topics are related but not the same, there is something to be said for keeping them separated in discussion, if not even in instruction. In this letter I am not thinking of the technics of publicizing the pharmacist and the pharmacy to laymen and physicians, and of creating favorable and lasting mental images—except as far as ethical questions might be involved.

**Objective:** The main objectives of a faculty effort in the field of professional ethics are undoubtedly stated by Blauch and Webster (p. 164): "(1) understanding of the need for, and the basis of, ethical conduct, including his special ethical obligations as a pharmacist; (2) a desire to render his professional service in accordance with ethical standards. . ." Their third point about "effective public relations" is relevant but not at the heart of the matter—if I understand them and your own question. Probably imbedded in their two main points are two subsidiary objectives that may deserve specific mention: (a) to create a pride in pharmacy and a jealousy of its reputation; (b) to secure an understanding of the implications of concrete situations involving ethical decisions that are met today, and the possible courses of action for resolving them.

**Place in the Curriculum:** It seems to me Kaufman is correct when he maintains that inculcating professional attitudes and ethics is a four-year task [*Amer. J. Pharm. Edu.*, 18 (1954), 259]. That does not mean instruction should stop with the idea that faculty members will introduce ethical questions in the various courses "wherever appropriate." Our experience, and that of some others, seems to indicate that again what is everyone's business becomes no one's business, —unless there are several faculty members who share the conviction of The Pharmaceutical Survey (**General Report**, p. 4) that "After all has been said and done, it may be concluded that the outstanding factor determining the future of the profession of pharmacy is fundamentally moral in nature."

Elsewhere (p. 57) The Survey **Report** contends that "This code [of ethics] should have a central place in the education and training

of pharmacists." If we agree with this, an effective compromise between an ideal program and the position that there is no room or reason for a definite endeavor by the schools, might look like this:

- (1) Pharmacy Orientation, course for pre-pharmacy or beginning pharmacy students: 2 periods on ethics.
- (2) General faculty participation, incidental to other courses, e.g., history of pharmacy, pharmaceutical law, dispensing, pharmacy administration.
- (3) Specific instruction on ethics as a separate course or part of another course, for senior or junior students: 16 or 32 clock hours. If, for some reason, it seems desirable to combine professional ethics with some other subject, pharmaceutical law seems to be the most logical combination. Both are concerned with maintaining standards of professional conduct,—the one through self control, the other through enforced socio-legal control. Since a historical analysis of pharmacy encounters ethical issues, and since instruction in ethics involves some history, there appears to be some inclination to teach the two subjects together. This is not illogical, but on the other hand there seems to be no particular reason for doing so. By helping to create professional pride in pharmacy and an understanding of pharmacy's heritage, fundamental social relationships and recurring problems, the course in the history of pharmacy should yield a contribution to ethical awareness and standards as a by-product. But there seem to be adequate reasons why the segment of instruction here discussed should be taught as a distinct, additional part of the history of pharmacy course, if a school decides to combine the two subjects in a single course.

**Content of Instructions:** General suggestions for the content of the three main approaches or places for ethical instruction in the curriculum (indicated above) are as follows—

- (1) The two hours on ethics for beginning students would stress the nature of ethics; social and professional implications of self-discipline; ethics vs. law, ethics vs. mores, ethics vs. etiquette; the nature of the APhA Code of Ethics; ethics as an essential part of the concept of a profession; pharmacy offers no place for the student looking only toward the money he can get out of it and who does not feel he will be willing to accept the standards of ethics and service.
- (2) Occasionally throughout the curriculum, various faculty members will have an opportunity to indicate that "as pharmacists" we do or do not do certain things, and why. These opportunities appear in counseling as well as teaching, but may tend to be overlooked after an initial enthusiasm. Hence the person with responsibility for the specific instruction in ethics might well provide an annual reminder or a faculty discussion of concrete examples of ways that faculty mem-

bers have been or could be sharpening the student's ethical awareness or introducing ethical issues. There is a still greater, or more ready, opportunity for faculty members to contribute toward the development of professional bearing and manner of speech. There is not the same opportunity to develop this sense of professional etiquette (as differentiated from ethical issues) as in the clinical years of medicine, however; but the development of extension programs in pharmacy schools provides a chance for tactful and helpful follow up in the post-graduate years.

(3) The substantial block of special instruction late in the curriculum seems to be a necessary culmination of any systematic endeavor. Perhaps "instruction" isn't quite the word, for guiding and stimulating thought seems to be the main hope for worthwhile results, rather than exhortation on the part of the teacher or memorization on the part of the student. Kaufman covers this by saying (*Ibid.*, 259), "The most important point to observe in teaching this unit on professional ethics is the great value of good discussion leadership." Topics recommended for the syllabus include: History of ethics, philosophic and professional, with emphasis on the evolution of professional codes and oaths in pharmacy and related health fields; temporary vs. lasting problems and provisions. Comparison of contemporary codes in various professions. Analysis of APhA Code of Ethics, including its history, its strengths and limitations. Need for enforcement program; extent and methods of enforcement by other American professions; extent and methods of enforcement by pharmacy in other countries. Discussion, in small groups, of concrete examples (hypothetical or actual) of current ethical problems.

At this point the student will have acquired enough background in ethics, and enough knowledge of pharmacy generally, to generate meaningful, useful discussions (by no means all students, but enough!). My own limited experience and that of Kaufman indicate that such discussion can be significant and quite demanding upon the instructor. I should think that at least half the clock hours could well be devoted to examining case histories. The students often introduce case problems from their observations and experience in retail pharmacy. Here the instructor and the students have to face up to the difference between agreeing with a code of ethics and actually dealing with circumstances that exhibit shades of grey all the way from white to black and with alternate courses of action involving not only what should be done but what *can* be done under the given circumstances.

"What should I do?" says the student. "As an intern my employer asks me to manage the pharmacy while he goes on prolonged fishing trips." "My father owns a pharmacy and physicians in the community have come to expect all drugstores to supply narcotics, not infrequently without a prescription immediately in hand." "In

the store where I worked the employed pharmacists were expected to dispense a brand other than that prescribed [without checking with the physician], if another standard and equivalent brand were in stock." "Is the APhA Code to be taken seriously when it says that the ethical pharmacist 'encourages the use of official drugs and preparations'." These come to mind as actual sample questions introduced by students. Another favorite involves the selling of self-medication (on a commission basis or otherwise) under a variety of circumstances. Many questions involve law as well as ethics, but are not necessarily therefore more open to a cut-and-dried answer of what our firm expectation of the young pharmacist's course of action should be.

I am under the impression that unless the students explore such questions under more or less expert guidance, with the help of adequate background information, many of them will never get around to thinking about it seriously. Perhaps a like number will drift with every current anyway, but I should think the potential of such instruction sufficient to justify the serious consideration of your Committee.

I hope these comments offer what your letter asked for; otherwise, please write to me again.

The University of Wisconsin

Madison, Wisconsin

Glenn Sonnedecker

(Note: The following is an abstract from a personal letter written to the Editor by the Secretary-Treasurer and published without his consent or knowledge. Many inquiries have come to the Editor as to why the Secretary spends his summers in France or in Mexico. This letter is the answer. I am sure the Association will join the Editor in wishing a restful, happy and profitable vacation for the versatile, hardworking, efficient, devoted, lovable, self-effacing Secretary-Treasurer of the American Association of Colleges of Pharmacy.)

Dear Dr. Lyman:

On the way to Taxco, I went via New Orleans and Merida, Yucatan. From Merida, it is 80 miles to Chichen Itza, one of the centers of the Mayan Culture. Chichen Itza is a remarkable extinct city,—16 square miles of remains of 100,000 homes. About 300 temple remains, of which about 20 are very important and have been cleared of debris and partly restored. I have read little before now about the Mayans because the parts of Mexico I have visited earlier were areas of the Aztecs and Toltecs—so this summer will be a Mayan summer—and another year I hope to revisit Yucatan to see some of the Mayan remains.

Some of my friends wonder why I come to Mexico or France for 2 or 3 months. I do a little school work but not much. Mostly it gives me a chance to look at the mountains in Taxco and think a little—about many things, including my work—and I need to get away periodically

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or I seem to grow irritable and tired. I have a few friends here—including the good woman who has allowed me to fix up her studio-garage for my use when I want it. I hope all goes well with you—and Lincoln is not too hot.

Soto la Marino 7

Yours

Taxco (Gro.), Mexico

Dick

June 21, 1955

(R. A. Deno)

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### **The Fifth Annual Meeting of the Industrial Council**

The fifth annual meeting of the Industrial Council, a national forum of educators and American industry, will have "**The Pharmaceutical Industry**" as its subject. The sessions will be held at Rensselaer Polytechnic Institute in Troy, N. Y., October 27, 28 and 29th.

Robert A. Hardt, vice president of Hoffmann-LaRoche, Nutley, N. J., representing the industry, and James H. Liberty, director of the Council, jointly announced the event. Mr. Hardt is chairman of the Program Committee.

The purpose of the Industrial Council is to promote better understanding of industry's key role in today's world. It is organized by R.P.I. with the cooperation of American industry. In the preceeding four sessions, approximately 600 leaders of the oil, chemical, electrical and automotive manufacturing industries have been hosts to a total of nearly 3000 secondary school teachers from across the nation.

Some 1000 educators representing secondary schools from Maine to California will attend the pharmaceutical industry session. Included will be state commissions of education, superintendents and members of teacher college faculties.

Meeting with them will be top executives and scientists of the pharmaceutical industry to lead a joint discussion of the roles of the industry and education and how the two can best work together to meet the problems of today's world. Secondary level educators were selected to attend the Council because they analyze the country's social structure for the youth of the nation.

In major luncheon and dinner addresses, four leading spokesmen for the pharmaceutical industry will tell of its achievements, objectives and problems as they see them in relation to the country's health and progress. The points which they bring out, as well as questions in the minds of the educators, will serve as bases for discussion in morning and afternoon panel sessions, in which both the educators and industrialists will participate. Not listed in the formal program but considered an important part of telling the industry's story are opportunities throughout the weekend to meet and talk with teachers informally.

## Notes and News

**University of Arizona.**—Dr. Albert Picchioni, who attended the annual meetings at Miami Beach, gave a report on the activities of the meetings before the combined meeting of the college and alumni Rho Chi Societies, as well as the Tucson Pharmaceutical Association during the last week in May.—On May 25 a class of 9 students was graduated by the College of Pharmacy. This class represented the low point in class size between the four year and the extended program in pharmacy in Arizona. Messrs. Gerard Trotter and James Robbins were granted M.S. degrees. Mr. Lowell Miller, one of the graduating seniors, has received an appointment to the United States Public Health Service Hospital at Seattle, Washington, for a period of internship as a commissioned officer in the USPHS.

**Butler University.**—Twenty-seven students received the bachelor's degree, and one the master's at the centennial commencement in June.—Mr. Edward E. Swanson, chief of bioassay at the Lilly Research Laboratories, was awarded the honorary degree of Doctor of Science in recognition of his outstanding contributions in the field of pharmacology.—Drs. John W. Martin and Donald S. Meyers were each the recipient of a \$500 award from the Arthur W. Baxter Foundation. The award carried the designation "Distinguished Teacher."—The Third Regional Science Fair was held on April 16. Young scientists from 40 central Indiana schools presented exhibits in the Pharmacy Building. The Fair is co-sponsored by the Indianapolis Association of Pharmacists, the Indianapolis Medical Society, the Indiana Section of the American Chemical Society, and Butler University.—Dr. Bert R. Mull and five students were initiated recently by Rho Chi. Dr. Mull and Mr. William Schobel were also initiated as new members of Alpha Phi, honorary scholastic society.—Miss Sandra Haas, a pre-pharmacy student, received the Butler University Freshmen Women's award at the Honors Day Convocation. She attained the highest average of all freshmen women on the campus for the first semester and was active in extra-curricular activities. Awards were also made to nine other pharmacy students.—The College is the recent recipient of a collection of books from Mr. W. D. Cairns of the Lilly Company.—Mr. Claude Piantadosi, who recently received the doctorate from the University of Maryland, has been appointed as assistant professor of biochemistry and physiology.—A considerable amount of new apparatus has been added to the equipment.

**University of Cincinnati.**—The Cincinnati Academy of Pharmacy holds all of its meetings in the new pharmacy building. President A. Erdeljohn of the Academy has arranged for an excellent series of monthly discussions.—Several pharmacy seniors have been accepted for graduate work.—Ralph Schrotenloher received a fellowship in bio-



chemistry in the College of Medicine, University of Cincinnati, under Dr. Logan; Ronald Brenner was awarded a teaching fellowship at the College of Pharmacy, University of Florida; Kay Don Bowers received a teaching fellowship from the University of Wisconsin; and John E. Ireton was awarded a scholarship in Pharmacy Administration from the School of Pharmacy, University of Pittsburgh.

**University of Colorado.**—Dean Charles F. Poe has been elected president of the Colorado-Wyoming Academy of Science for the coming year.—At the last meeting of the Student Branch for the year, six awards were presented to seniors for excellence in scholarship.—Dr. Fred Drummond and Harlan Nietfeld, president of the Junior APhA, made the annual flying trip sponsored by the Colorado Pharmaceutical Association. They attended the district meetings at Pueblo, Grand Junction, Durango, and Alamosa.—Theta Chapter of Kappa Epsilon was reactivated in April with twenty-one new members.—The Colorado Chapter of Sigma Xi celebrated its fiftieth anniversary by a banquet with Dr. W. W. Howells, professor of anthropology at Harvard University, as guest speaker. Mr. Betleigh Cox, instructor, and Mr. John Palmer, research associate, were initiated as associate members on this occasion. Drs. Norman Witt and Fred Drummond of the pharmacy faculty, were elected to the Board of Electors for a three year term.—Recent guest speakers before the Graduate Chemistry and Pharmacy Seminar were Dr. Baldwin R. Shepard, head of the Organic Research Division of Eli Lilly, and Prof. Joseph Kenyon, professor of chemistry, Battersea Polytechnic Institute, University of London.

**Columbia University.**—Dean E. E. Leuallen has been appointed by the Foreign Operations Administration to serve as Consultant in Pharmacy to the National Taiwan University. He left July 5 for approximately ten weeks in Formosa to study local needs and to assist in the development of a program for the newly established School of Pharmacy.

**University of Connecticut.**—An educational trip was recently taken by the senior class to the Abbott Laboratories, the Eli Lilly plant and the Sterling-Winthrop Institute. The trip is a part of the regular curriculum and requires eight days.—Thirty-six students made the Honor Roll the last semester. Twelve made First Grade Honors and 24 made Second Grade.—The Ninth Annual Pharmacy Postgraduate Clinic, sponsored by the Connecticut Pharmaceutical Association and the College of Pharmacy, was held on April 27 and 28. The program of speakers was furnished by the faculty and representatives of ten drug firms and related organizations.—Dean H. G. Hewitt was the principal speaker at the annual Doctor-Pharmacist Banquet of the Waterbury Pharmaceutical Association on April 1.—Two pharmacy students, Richard Linstrom and Anthony Simonelli, presented papers at



the Connecticut Valley Student Science Conference at Amherst, Massachusetts on April 30.

**Creighton University.**—Creighton University celebrated the fiftieth anniversary of the founding of its College of Pharmacy on May 12, 1955. The day's program consisted of a series of lectures, demonstrations, and an evening banquet at the American Legion Club. The opening lecture of the program was given by Mr. John A. Scigliano, Assistant Chief, Pharmacy Department, National Institute of Health, Bethesda, Maryland, who is a 1941 graduate of the College. His topic was "Opportunity Unlimited—U. S. Public Health Service." A most distinguished guest was Mr. John B. Heinz of Salt Lake City, Utah, who is a 1912 alumnus of the College. Mr. Heinz has long been active in national pharmaceutical affairs and currently is President of the American Pharmaceutical Association. Guest speaker at the banquet was Dr. Ivor Griffith, President and Dean of the Philadelphia College of Pharmacy and Science.

**Drake University.**—The first Pharmacy Seminar sponsored by Drake was held on April 28 and 29 and the topic chosen for discussion was Hypertension and Antihypertensive Drugs. The program included both lecture and laboratory work. A one topic seminar was, in the opinion of the faculty, sufficiently successful to warrant attempting it again next year.—Mr. I. W. Meyers, legal counselor for both the Iowa Pharmaceutical Association and the Iowa Medical Association and lecturer in Pharmaceutical Law at Drake, was initiated as a faculty member by Rho Chi in April and was the chief speaker on the occasion.—Two pharmacy students, George Farmer and Harold Rankin, were chosen as members of the All University Student-Faculty Council and subsequently the latter was elected by the Council to serve as its president for 1955-56.

**Duquesne University.**—Dr. John G. Adams has been appointed dean to succeed Dr. Hugh C. Muldoon. Dr. Adams is an alumnus of Duquesne. He was an instructor there for two years before enrolling at the University of Illinois where he received the master's and the doctorate in pharmacy. He returned to Duquesne in 1952 and held the rank of associate professor at the time of his appointment as assistant dean last January. During World War II he was a Surgical Technician with the U. S. Army Infantry in the European Theatre and is the recipient of the Bronze Star for meritorious service and the Distinguished Unit Citation. He is a member of the APhA, the American Association for the Advancement of Science, and the Rho Chi Society.—Dr. Joseph A. Feldman has been appointed as assistant professor of chemistry. He is a graduate of the Rhode Island College of Pharmacy and holds the master's degree and the doctorate from the University of Wisconsin where he held a Fellowship of the American Foundation for Pharmaceutical Education. He is a member of

Sigma Xi, Rho Chi, Phi Lambda Upsilon and Phi Sigma honorary societies. He served with the U. S. Armed Forces from 1943 to 1946 and held an assistantship with the Wisconsin Alumni Research Foundation.—Robert C. Shaheen has been named an assistant professor of pharmacy. A native of Altoona, Pennsylvania, he attended Penn State University and received the bachelor's degree from the Philadelphia College of Pharmacy and Science. He holds the master's from Purdue and will receive the doctorate there next year. He is a member of the APhA, the Pennsylvania Pharmaceutical Association, Rho Chi, Lambda Upsilon, Sigma Xi and the Society of Cosmetic Chemists. He is the author of an article on infra-red radiation drying for tablet coatings in a recent issue of **Drug Standards**.

**Ferris Institute.**—Beta Nu chapter of Rho Chi Society was installed by Dr. Lee Worrell of the University of Michigan on May 19. Thirteen seniors, eight juniors and 3 faculty members were initiated at the dinner meeting. Five other faculty members at Ferris hold membership in Rho Chi at other institutions. President Victor F. Spathelf of Ferris addressed the group at the banquet. He stressed scholarship as the main business of the student at Ferris.—Four pharmacy students received awards for scholarship at the Institute's annual honor assembly.—Forty-seven students were graduated in June and an additional ten expect to finish graduation requirements by August.—Dr. James R. Weeks, of Drake University, was on the campus the first week in June for consultation with the pharmacology division relative to methods of improving course offerings in pharmacology.—Dr. M. Robert Buchdahl underwent major surgery in mid-April and is expected to resume teaching activities in the fall.

**University of Florida.**—Mr. Ray Dauphinais, assistant professor of pharmacy, has been awarded a fellowship by the American Pharmaceutical Manufacturers Association to study for an advanced degree with a major in pharmaceutical law at New York University.—Dr. Charles H. Becker spoke to the Volusia County Dental Society at Daytona Beach on the subject "Dental Prescription" on March 14.—Memorial pictures of Drs. F. H. Heath and V. T. Jackson were hung in the Chemistry-Pharmacy library on March 18 with appropriate comments by Dean P. A. Foote and various members of the chemistry faculty.—The College's annual Open House was held on March 18-20 in the Engineering and Industries Building as a part of a campus-wide exhibit. The students were in charge of the displays and laboratory exhibits which attracted good sized crowds.—On June 5, the Alachua County Pharmaceutical Ladies Auxiliary entertained the graduating class at a buffet supper at the home of Dean and Mrs. P. A. Foote. During this event seven students were given awards because of superior scholarship. Three senior pharmacy students and two graduate students have been elected to Phi Kappa Phi.—The College has signed a contract with the Armed Forces Medical Procurement Agency to

carry on a two-year project on the stability of pharmaceutical products. Dr. C. H. Becker will conduct the work with Drs. W. J. Husa and W. H. Lauter as consultants and Dr. Randall Tinker will devote full time to the study, assisted by two part-time graduate assistants.—Mr. Noel Neussle was awarded the master's degree at the June commencement and will continue work toward the doctorate.—At the June Commencement, the following received the Ph.D. in Pharmacy: Joseph Michael Campo, who expects to be called into the Armed Forces; John Dolan Mullins, who will work in the Department of Pharmaceutical Development for Merck and Company; Arthur Wauchap Reid, who will become assistant professor of pharmacy at Detroit Institute of Technology; Howard John Schaeffe, who did his research project at Oak Ridge Institute, will now do work on cancer at Southern Research Institute at Birmingham, Alabama; and Randall Bradford Tinker, who will carry on research at the University of Florida as a part of an Armed Forces contract.

**Fordham University.**—Commencement exercises were held on June 8. For the first time in Fordham's history the exercises of all the schools of the University were held at the same time and in the same place. On this occasion, eight prizes were awarded to six students for excellence in scholarship. One student was graduated with

**Magna cum laude** and four with **Cum laude** for having attained averages of 90% or over for the entire course.—At a regular meeting of the Alumni Association, held on June 1, 99 members of the class of 1955 were inducted into the Association.—During the year the various classes made educational trips to different manufacturing establishments; the freshmen visited Hoffman LaRoche at Nutley, New Jersey; the juniors went to Merck and Co., at Rahway, New Jersey, and Winthrop-Sterns at Albany, New York; and the seniors were guests of the Lederle Laboratories at Pearl River, New York, Eli Lilly at Indianapolis, Indiana, and Parke-Davis at Detroit, Michigan. The Italian Pharmaceutical Association honored Dr. Albert J. Sica on his appointment as associate dean presenting him with a scroll at a recent banquet. At an informal dinner, given by the senior class, he was presented with a Revere movie outfit and a scroll signed by every member of the class in recognition of his services to the class as a teacher and friend through the four years of their college life.—Prof. Paul Doyle of the English Department, was granted the doctorate by Fordham on February 1. His thesis was entitled, "William Melmoth, A Critical Biography."—Prof. R. J. Marano has been granted a partial sabbatical for the school year beginning in September in order to complete the work for a doctorate.—Dr. A. J. White spoke recently before the Bronx Podiatry Society on the topic "Practical Prescription Writing for the Podiatrist."

**George Washington University.**—Thirty-five juniors and seniors made a four day trip to the Parke-Davis and the Upjohn plants, the

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week before Easter.—The Beta Zeta Chapter of Rho Chi Society was installed at the School on March 25. Dr. Milton L. Neuroth, the national president of the Society acted as installing officer. There were seven charter members. Three new members were initiated in May.—Dr. R. M. Leonard discussed the pharmacology of some of the newer drugs at the May meeting of the Graduate Nurses' Association of the District of Columbia.—Twenty-two seniors received the bachelor's degree in June, two "with distinction" and four with "special honors." Dr. W. Paul Briggs was a recipient of an Alumnus Achievement Award at the convocation. Scholarship awards were made to nine undergraduates.—The District of Columbia graduate chapter of Kappa Psi has established a fund to be combined with that of the Gamma Tau chapter to be given to a student in need of financial aid.—Dr. Robert M. Leonard has been promoted to associate professorship.—Dean Charles W. Bliven has been elected vice president of the George Washington chapter of Sigma Xi.—The Women's Auxiliary of the District of Columbia Pharmaceutical Association has contributed \$25 to the school's equipment fund.—The School is the recipient of 175 volumes from the library of Dr. W. Paul Briggs.

**Idaho State College.**—Mr. Max Polinsky, instructor in pharmaceutical chemistry, underwent surgery on June 6 and is making a satisfactory recovery.—More than 200 students, faculty members, physicians, dentists and pharmacists from southeastern Idaho attended the Annual Awards Dinner at which Mr. Jack Heinz, of Salt Lake City, president of the APhA, was the guest speaker.—Mrs. Cisco Kihara, instructor in pharmacy and secretary of the College, left on June 12 to spend the summer in her ancestral home in Japan. It is her first return since 1937.—Dr. L. E. Gale has been chosen to represent the College at the Eli Lilly Company Industrial Seminar at Indianapolis from August 28 to September 2.

**University of Illinois.**—On May 18, the College held open house for the members of the Illinois Pharmaceutical Association who were attending the annual meeting in Chicago. They were escorted in small groups by members of the Student Branch through the class rooms and laboratories. In the evening, a joint dinner by the State Association and the Alumni was held at the Hotel Sheraton at which Dean E. R. Serles was presented a beautiful scroll in appreciation of his efforts which culminated in the new building. The scroll was signed by officers of the State Association, the College Alumni Association, the College Advisory Committee, the College Faculty and the non-academic employees group. University President Morey, and H. B. Morgan, President of the Board of Trustees, paid glowing tributes to Dean Serles for his work toward the improved facilities.—At the Honors Day Convocation "High Honors" were announced for nine students, and "Honors" for thirteen students covering the four classes. In addition, prizes were awarded for excellence in scholarship.—On

May 11, eleven juniors, two seniors and two faculty members were initiated by Phi chapter of the Rho Chi Society.—Seventy-eight seniors were awarded the bachelor's degree in pharmacy at the June 17, commencement.

**State University of Iowa.**—William W. Tester, Chief Pharmacist State University of Iowa Hospitals, and Mrs. Norma Jochumsen, Associate Pharmacist of the Hospitals, were elected President and Secretary, respectively, of the Iowa Society of Hospital Pharmacists which was organized in Iowa City on March 15. The Hospital Pharmacy is a teaching unit of the College of Pharmacy.—Dean Louis C. Zopf addressed the Anesthesiology Seminar at the University Hospital, the Belle Plaine Rotary and Rotarian Clubs at their annual joint meeting in March, and took part in a panel discussion on educational goals at the Seventh Annual Institute for Hospital Pharmacists which was held in St. Louis, Missouri, in May.—Activities of the pharmacy staff during April include a discussion of the fields of pharmacy, medicine, and law on the Career Day program held at the Grundy Center High School, the fields of pharmacy and chemistry at the Career Day held at Eagle Grove where seniors from 9 high schools were in attendance, and an address before the anniversary meeting of the Tipton Rotary Club by Dr. W. L. Kerr.—Three new members have been elected to Rho Chi. Included was Mr. John F. Rabe, an alumnus of the class of 1914 who is at present Secretary of the Iowa Board of Pharmacy Examiners and President of the National Association of Boards of Pharmacy.—Alfred P. Collins has been elected to full membership and Kanak K. Ravel of India and Harold J. Black to associate membership in Sigma Xi.—In March, three freshmen pharmacy women were initiated as full members of the University of Iowa Scottish Highlanders.—Harold J. Black was awarded the degree of M.S. in Hospital Pharmacy at the June convocation.

**University of Kansas.**—Dr. J. H. Burckhalter has received research grants from the National Heart Institute and from Parke-Davis for the coming year. Research fellows who will serve under these grants are Dale Dill, Cecil Caldwell, Robert Leib, and William Brinigar.—Dr. Burckhalter attended the recent meeting of the American Chemical Society at Cincinnati. He has also received notice of his appointment as a Faculty Fullbright Fellow to conduct research at the Eberhard Karls University at Tubingen, Germany, and will leave with his family early in September.—Forty-one students and wives made the annual trip to the Parke-Davis plant recently.—Dr. Duane G. Wenzel has received a grant from the National Institute of Health for the pharmacological study of isomers of tetravalent phosphorous compounds.—Dr. Ray Hopponen recently participated in the Lawrence High School career day program.—Rho Chi has initiated two upper classmen.—Awards were announced for seven students at the Annual Honors Banquet on May 14. The graduating seniors also presented

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"awards" to the faculty. The speaker on the occasion was Dr. Max Dresden of the Physics Department. His topic was "The Responsibility of a Scholar to Society." Twenty-three seniors were graduated in pharmacy at the June commencement.

**University of Kansas City.**—Twenty-two received the B.S. in Pharmacy, and two the M.S. in Pharmacology at the June Commencement. —Five students were initiated by Rho Chi at their banquet on May 12. The guest speaker was Mr. Samuel Alfend of the Food and Drug Administration. He described some of his experiences in combating fraudulent devices.—A medicinal plant garden is being developed back of the pharmacy building under the direction of Dr. John Baumgardt. It will serve both graduate and undergraduate students in pharmacognosy.

**University of Maryland.**—At the second annual Honors Day Convocation held on June 1, awards made possible by individuals, organizations, and fraternities for scholarship and various activities, were presented to 14 students. Medals for academic excellence were presented to 28 students covering the four class in school during the academic year 1954-55. Certificates of Honorary Mention were presented to 3 students and 25 were in the Honorary Mention list. Medals for extra-curricular activities were presented to 26.—Mr. John J. Sciarra, instructor in pharmacy, received honorable mention in the Lunsford Richardson Pharmacy Award of the Vick Chemical Company contest and received a commemorative scroll and a prize of \$100 for his winning essay.—Dr. George P. Hager is leaving the School on August 1, to join the Research and Development Department of Smith, Kline and French Laboratories. The object of his research will be to study structure-activity relationship.—Dr. Frank A. Dolle, instructor in zoology, resigned July 1 in order to take up the study of dentistry.—Dean Noel E. Foss was the chief guest speaker at the Pharmacy Alumni Association meeting of Duquesne University on April 13, on the occasion of the retirement of Dean Hugh C. Muldoon who organized the School of Pharmacy there and has directed its activities for 30 years. Dean Foss, who was at one time a member of the Duquesne faculty, spoke on the subject "Changing Education for a Changing Society."—On March 15, Omicron Chapter of the Rho Chi Society elected 4 undergraduate and 4 graduate students to membership. Mr. Simon Solomon was elected to Alumni membership.

**University of Minnesota.**—Fifty seniors were graduated on June 11.—Robert V. Peterson and Paul G. Bay received the Ph.D. degree during the year. They and Dr. William S. Benica were elected to Sigma Psi.—At the University Cap and Gown Day, the names were read of pharmacy students elected to Rho Chi, Phi Lambda Upsilon and those who received scholastic honors and prizes.—At various times during May, the members of the senior class were guests of the Minnesota



State Pharmaceutical Association, the local wholesale drug houses, and the Animal Health Pharmaceutical Association which held its annual meeting in Minneapolis.—For three days in March the faculty assisted the Minnesota State Pharmaceutical Association in a "Careers Festival" held at St. Thomas College in St. Paul. Nearly every career was represented by exhibits and counselors. Pharmacy was grouped with the health professions. About 20,000 high school seniors and college freshmen spent time with the counselors.—On April 21, Dr. Netz spoke to and conducted a group of Minneapolis high school seniors through the College.—The members of the senior class have been busy with representatives of pharmaceutical manufacturers and retail pharmacists who are interested in employing them after graduation.—Mrs. Karen Vermund became the department librarian on April 11.—The Bertha McWilliams estate and the Claude Mather estate have each established an undergraduate scholarship for a pharmacy student. Both proprietors were retail pharmacists.—During the spring quarter, the senior class was addressed by representatives of local and federal agencies and by representatives of a number of manufacturing concerns.—A group of 50 students recently visited the Lilly and the Abbott Laboratories.—Within two or three years the College of Pharmacy will occupy new quarters. The last legislature appropriated funds for constructing an addition to the main engineering building to house the School of Mines which has a student enrollment too small for efficient use of the building. The School of Mines building is completely fire proof, needs very little remodeling for use by pharmacy, and it has twice the floor space of the present pharmacy building. The new quarters will enable the College to accept 60 freshmen students instead of 40 at present, and they will offer facilities for an expanded program of graduate instruction. Expansion to maximum student capacity will depend upon the availability of well qualified applicants.—Dr. Wallace F. White has been made a part time member of the department of pharmacology in the School of Medicine, in which capacity he will teach and direct both undergraduate and graduate students in that field. He will continue to serve with the department of pharmacognosy and will retain his office in the pharmacy building.—The faculty was active in the 71st annual convention of the State Association. Dr. Charles Netz organized the program and presided over the half-day professional session. Dr. Willard Hadley was continued as secretary.—A large consignment of research apparatus has been added to the equipment during the last three months.—On June 11 twenty-five graduates were commissioned as Second Lieutenants in the Medical Service Corps of either the U. S. Army or the Air Force.

**University of Mississippi.**—At the Honors Day Convocation on May 4, Dr. A. A. Dodge presented awards to five students for outstanding scholarship.—Seven initiates received membership in Rho Chi on May 12 at a dinner in the university cafeteria at which Dean



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Karl J. Goldner of the School of Pharmacy of the University of Tennessee was the principal speaker.—Dr. W. Lewis Nobles of the Chemistry Department has been awarded a Gustavus A. Pfeiffer Memorial Research Fellowship for the academic year 1955-56.—Charles M. Darling, a pharmacy senior, has been awarded a University of Mississippi Graduate School War Service Fellowship. During the coming year he will pursue studies leading to the M.S. degree in pharmaceutical chemistry.—Thirty-four persons received the B.S. degree on June 6.—Nine pharmacy students made the Honor Roll the second semester. Forty-nine students registered for the first six weeks of the summer session.

**Montana State University.**—The annual Montana Pharmacy Institute was in Billings on April 17 and 18. Forty-five pharmacists attended.—A joint meeting of the faculties of the College of Pharmacy and of Idaho State College was held on April 24 at Salmon, Idaho. Problems of mutual interest to the two groups were discussed. Consensus of opinion was that the meeting was very much worthwhile and that similar meetings should be planned regularly for the future.—Dr. John Wailes and family are spending the summer vacation in Denver, their former home.—At the annual Pharmacy Awards Dinner in May, Dr. John F. Suchy, veteran professor of pharmaceutical chemistry, was the recipient of a 21 inch Packard-Bell television set, a gift by members and alumni of the local chapter of Kappa Psi.—Dr. and Mrs. Suchy's son, John Jr., has been awarded a Fulbright Scholarship for study at the University of London the coming academic year.

**University of Nebraska.**—Approximately 275 pharmacists and friends attended a testimonial dinner given to Dean Joseph Bell Burt by the Alumni of the College and the Nebraska Pharmaceutical Association at the Hotel Lincoln. Mr. Joseph G. Noh, of Sioux City, Iowa, a distinguished alumnus of the class of 1921, was toastmaster. Speakers on the program were Chancellor Clifford M. Hardin; Dean Emeritus R. A. Lyman; Dean Louis C. Zopf of the College of Pharmacy of the State University of Iowa and Chairman of the Executive Committee of the American Association of Colleges of Pharmacy; and representatives of the Nebraska State Board of Health, the State Board of Pharmacy Examiners; the Nebraska Pharmaceutical Association, and local drug organizations. Dean Burt had just completed 35 years of service on the faculty of the University of Nebraska, served five years as chairman of the Executive Committee of the American Association of Colleges of Pharmacy and served that organization as president for the years 1954 and 1955.—Ten students were granted awards or received honorable mention at the annual banquet of the Student Branch on May 28.—Dean Joseph B. Burt was awarded the honorary degree, Doctor of Science, by Purdue University on June 5.—Nineteen senior and two graduate students received degrees at the June commencement.

**New England College of Pharmacy.**—Dr. Herbert C. Raubenheimer has been appointed as assistant dean of the College. He will serve as director of the educational program and will be in charge of the fund-raising campaign. He has been on the staff since 1952, coming from St. Johns University College of Pharmacy where he had taught for 21 years. Dr. Raubenheimer is a member of the APhA, the American College of Apothecaries the American Institute of the History of Pharmacy and the American Association of University Professors.

**University of New Mexico.**—Dean Elmon L. Cataline spoke before the January meeting of Sigma Xi on "Water-in-Oil Emulsifying Agents". In February he, with Dr. James E. McDavid, attended the Rocky Mountain Drug Conference and was elected secretary of the Conference for the ensuing year. During February the Dean attended district meetings at Roswell, Clovis, Las Cruces, and Gallup, where he discussed the extended pharmacy program in order that the druggists of the state might be versed in the plan and its intentions.—On April 23, Kappa Psi staged their annual banquet for the graduating seniors at which awards were made to four for excellence in scholarship.—The New Mexico Pharmaceutical Association featured a "Salute to the College of Pharmacy" as one of the two main themes at the State Convention in June.—Mr. Ben Osuna, local attorney and son of a physician, has presented his father's books on medicine, physiology, and pharmacology to the Pharmacy library.—Dr. Ray Castle attended the March meeting of the American Chemical Society.—A new section in *El Boticario*, official publication of the State Association, gives the prescription trend based on a sampling of prescriptions in the city the preceding month with comparisons and discussions as they develop. Dr. George L. Baker is the compiler and author of the articles involved.—The Women's Pharmaceutical Auxiliary has established a \$250 annual scholarship beginning with the 1955-56 session.—Dr. James E. McDavid resigned at the end of the year to accept a research position with the Cutter Laboratories of Berkeley, California.

**University of North Carolina.**—Forty-three students were graduated at the June commencement. Frederick Wilson Teare and Kenneth Look Hoy were granted the doctorate. Dr. Hoy was the recipient of first prize (\$1,000 for himself and \$1,000 for the School) in competition for the 1955 Lunsford Richardson Pharmacy Award.—Ten undergraduates earned special awards for excellency of scholarship.—The Faculty Club elected Dean E. A. Brecht and the Elisha Mitchell Society elected Dr. Walter Hartung as their incoming presidents.—The School of Pharmacy and the North Carolina Pharmaceutical Association successfully contested a proposed bill to reactivate an "assistant pharmacists" act.—The Justice Drug Company sponsored its seventh annual banquet recently in honor of the senior class.—Two new members have been initiated by Rho Chi recently.—Dr. J. C. Krantz of the University of Maryland presented his lecture "Simplicity to Wonder" as the sub-

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ject of an annual address sponsored by the Rho Chi Chapter.—Papers presented before the Graduate Seminar recently include: Bacterial Evaluation of Antihistaminics by Dr. W. R. Straughn of the bacteriology department; Japanese Pharmacy, by Dr. T. O. Komoto of the University of Tokyo Pharmaceutical Institute; Chemotherapeutic Agents for Mental Diseases, by Dr. M. L. Moore, Director of Research of the Vick Chemical Company; and Clathrate Compounds, by Dr. J. F. Burnett of the chemistry department.—David Stiles of the Abbott Company addressed the students recently on Dispensing Trends and Continued Service.—“Tomorrow’s Drugs” was the subject of a one hour television broadcast over the University’s television station on the evening of July 5. The program was the fifth of a series under the general title, “Project: Health” originating within the Division of Health Affairs. The program emphasized the role of research in the improvement of better drugs and better dosage forms. Prof. H. O. Thompson and four graduate students demonstrated the manufacture of tablets and Dean E. A. Brecht and two graduate students demonstrated emulsions to show research done by students majoring in pharmacy for the doctorate. Prof. Walter Hartung and John Andrako, with five graduate students, explained basic techniques and purposes of pharmaceutical chemistry. A kinescope recording of the program was made suitable for rebroadcast and public showing of the 16 mm sound film.

**North Dakota Agricultural College, School of Pharmacy.**—Thirty-three seniors received degrees at the June commencement. Five of them were graduated with honor. Dean W. F. Sudro retired on July 1 after serving the College for forty-eight years. He was awarded an honorary degree of Doctor of Science in recognition of his services to the school and was tendered a testimonial dinner by the student body.—Wayne Kessler, a member of the senior class, has been awarded a Phi Kappa Phi graduate fellowship and will continue graduate studies at the College, majoring in pharmaceutical chemistry.—Dr. Clifford E. Miller has been appointed dean of the School of Pharmacy.

**Ohio State University.**—Dr. Loyd E. Harris attended the National Resources Conference at the University of Toledo, March 28-April 18.—Dr. Harris has been appointed to the Committee on Professional Relations of the Central Ohio Academy of Pharmacy.—Dean and Mrs. B. V. Christensen were presented with gifts at a dinner held in his honor on June 11. The three pharmaceutical fraternities at Ohio State have each had a dinner honoring Dean Christensen. The Alumni have presented the University with an oil painting of Dean Christensen.—Dr. Joseph H. Kern has accepted an appointment as assistant professor on the pharmacy staff of the University of Florida, effective September 6, 1955.—Frederick C. Blumbaugh and Nouri Y. Mary received their doctorates at the June commencement. Dr. Blumbaugh will remain on the pharmacy staff and Dr. Mary is returning to his home in Baghdad, Iraq, where he plans to teach pharmacognosy.—Donald J. Lamb received the

Ph D., majoring in pharmaceutical chemistry, in June. He will report soon for duty as a Lieutenant in the Army Medical Service Corps.

**University of Oklahoma.**—Allen Rosenbluth, a senior student who was the Student Branch representative at the Miami Beach meeting, reported his experiences to the Branch on May 17. He recommended that time at the national meeting be devoted to a panel discussion of the problems of student branches and that a meeting of pharmacy students be held in District No. 6 during the next college year.—An article entitled "The Geography of Drugs" by Dean R. W. Clark, was published in the April, 1955, Oklahoma Quarterly (a record of research and reviews published by the Oklahoma Association). He called attention to the fact that plants, either as such or more often as sources of active principles, will long occupy an important place in medicine and will continue to be important in economic botany. In May Dean Clark spoke on "Public Opinion" before the Oklahoma Medical, Dental and Pharmacists' Association. Following the address he took part in a panel discussion, the subject of which was "The Relationship and Courtesies Between Physicians and Pharmacists". Jesse Tarver, the first negro pharmacist to graduate from the Oklahoma University College of Pharmacy, was also a member of the panel—George Dinkler, a pharmacy alumnus, has been elected one of the new members of the sixteen member University of Oklahoma Association Executive Board.—Dr. Ralph Bienfang has been chosen president of the Norman Red Cross.

**Oregon State College.**—The Western Regional meeting of Lambda Kappa Sigma was held in Klamath Falls on April 16-17.—Since out-of-the-state travel money has never been available for non-administrative staff members, the pharmacy faculty have formed an association to make it financially possible for one member each year to attend the AACP and the APhA meetings. The six staff members belonging to the group collectively finance one staff member each year.—On April 22-23 the State College was host to 1,600 high school students who visited the campus. Dean George E. Crossen spoke to those seniors who had indicated a preference for pharmacy, and pharmacy seniors conducted groups through the class rooms and laboratories of the pharmacy building.—Muriel C. Vincent, instructor in pharmacy, received the Ph D. degree from the University of Washington in June. Her thesis was on "Quantitative Determinations of Sympathomimetic Amines by Ion Exchange Resins".—Dr. R. S. McCutcheon has been granted leave for 1955-56 to pursue post-doctorate research at the Georgia College of Medicine and has been awarded a grant by that institution to pursue studies pertaining to cardio-vascular problems.—Dr. D. P. N. Tsao has been awarded a grant of \$500 for the coming year to continue his research on "Biosynthesis of Cardiotonic Glycosides in *Digitalis purpurea*".—Three pharmacy students were recently elected to Phi Kappa Phi and Frank Chan has been initiated into Sigma Xi.—Ten pharmacy

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seniors received the B.S. certificate in pharmacy and one of the ten, in addition, has received the A.B. degree.—Five seniors and two juniors have received awards for excellence in scholarship.

**University of Pittsburgh.**—Dr. Hugh C. Muldoon, retiring Dean of the School of Pharmacy of Duquesne University, was the main speaker at the annual dinner given to the graduating class by the Alumni Association. He spoke on the topic "The Past is Prelude".—Two members of the class were graduated "**Summa Cum Laude**" and four with "**Cum Laude**". Seven were awarded prizes for scholastic excellence.—Dr. J. A. Bianculli has been elected as president of the Pittsburgh Branch of the APhA, and Mr. P. J. Windock was chosen as vice-president.—Dr. R. J. F. Palchak was recently reelected secretary-treasurer of the Graduate Chapter of Kappa Psi.—Dr. Palchak and W. L. Blockstein prepared a pharmacy exhibit, centered around the theme "The Chemotherapy of Cancer", at the Annual Scientific Day of the School of Medicine recently held at the Mellon Institute.—George B. Hook and Joseph D. McEvilla, instructors in pharmacy administration, were granted the doctorate on June 19. Dr. Hook and W. J. Kinnard, a graduate student in pharmacology were recently elected associate members of Sigma Xi.—W. L. Blockstein has been named as editorial consultant to the **Prescriptionist**, a new national pharmacy publication. He will conduct the monthly feature, Prescribed Reading, as a part of his duties.—The Inter-Fraternity Council was awarded third prize for its display in the 1954 National Pharmacy Week contest.—Phi Sigma, honorary fraternity for the biological sciences, has elected six of the faculty staff to membership. Dr. Joseph P. Buckley has been elected an honorary member.—A \$1,159 research grant from the Lakeside Laboratories of Madison, Wisconsin, has been made for the support of an investigation of the mechanism of action of "Investigative Drug JB-340" under the direction of Drs. Buckley and DeFeo of the department of pharmacology.

**Philadelphia College of Pharmacy and Science.**—Assistant Dean Linwood F. Tice has been appointed to the Surgeon General of the U. S. Public Health Service for the purpose of giving assistance to the Service concerning plans which are being developed directed toward meeting certain health problems which would result in case of a national emergency.—Dr. Edgar C. Smith is one of a committee planning for the observance in October of the ninetieth anniversary of the Woodland Presbyterian Church.—Registrar John E. Kramer has been re-elected Secretary of the Board of Managers of the West Branch Y.M.C.A. in Philadelphia.—Prof. Grafton D. Chase spent the last two weeks in December in Maracaibo, Venezuela with Drs. Jean and Jorge Quintero with whom he is collaborating in the construction of a medical-surgical clinic in that city.—Thirty-three international students and faculty members gathered recently at a special dinner in honor of these visitors from other lands.—One hundred twenty-five citations

for participation in extra-curricular activities were made at the Annual Student Awards Assembly on May 19.—Thirteen freshmen, 7 sophomores, 21 juniors and 5 seniors made the Dean's Honor Roll the last semester. Each student achieved an average of not less than 85% and no grade less than a "C".—A complimentary one-year Membership was presented to every senior student by the Pennsylvania Pharmaceutical Association.—More than three hundred alumni and friends attended the Alumni Association Spring Reunion Dinner at the Benjamin Franklin Hotel on May 21. Semi-Centennial certificates were given to members of the 1905 class and the annual alumni awards were given to Dr. E. Fullerton Cook and Dr. Eli Lilly. Madeline O. Holland retired as president of the Alumni at that dinner and the incoming president, James B. Merrick, assumed office.—President Ivor Griffith received the Educator's Award from the Chamber of Commerce of West Philadelphia on May 26.—On June 13th, 159 baccalaureate degrees were granted in bacteriology, biology, chemistry, and pharmacy.—Honorary degrees of Doctor of Science were awarded to Crawford H. Greenewalt, president of H. I. duPont and Nemours and Company of Wilmington, Delaware; Samuel P. Wetherill of Haverford, Pennsylvania, president of Hyper-Humus Company and chairman of the Board of Trustees of the College; and Paul W. Wilcox, director of pharmaceutical research of Sharp and Dohme Division of Merck and Co., West Point, Pennsylvania.—Dr. Joseph W. E. Harrison has retired as head of the department of pharmacology but will continue to direct his private organization, the LaWall and Harrison Research Laboratories in Philadelphia.

**Purdue University.**—A group of 45 seniors and graduate students visited the Parke-Davis Company and the Upjohn plants recently.—The national convention of the Kappa Epsilon Sorority was held on the Purdue campus, May 13-15.—Members of the senior class were tendered a banquet on May 19 by the Kiefer Stewart and the Mooney-Muller-Ward wholesale drug firms of Indianapolis. Dean Glenn L. Jenkins presented the senior awards at that time. Dean Jenkins himself received an honor in the form of an honorary membership in the Norwegian Pharmaceutical Association which was presented by Dr. Egil Ramstad.

**Rhode Island College of Pharmacy and Allied Sciences.**—Forty students were graduated at the June commencement and three honorary degrees were granted. Two were two outstanding retail pharmacists of the state, William Alfred Pinault and Clarence Alanson Vars, who received the Honorary Degrees of Doctor of Pharmacy. The Honorary Degree, Doctor of Science was granted Mr. William Clement Gaige, president of Rhode Island College of Education. Fourteen students received special awards for excellence in scholarship.—At the annual meeting of the Corporation on July 13, Dr. Albert W. Clafflin was reelected president of the College for the nineteenth consecutive year, and Dr. W. Henry Rivard was reappointed dean for the twenty-



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sixth time. Dr. Russell E. Brillhart was continued as assistant dean. The group discussed current problems concerned with pharmaceutical education, especially the extended course.

**Rutgers University.**—The Vick Chemical Company's Lunsford Richardson award of \$1,000 was won by Earl W. Sengling, an undergraduate pharmacy student, for a paper dealing with a research problem in pharmaceutical tableting. The College of Pharmacy also received a similar sum. A second prize of \$100 went to George Comerçi, another senior student, for his research on a problem dealing with the antiseptic effectiveness and toxicity of compound zinc sulphate powder.—Mr. Comerçi and another senior student, Fred Shuster, presented papers at the APhA meeting in Miami. Their expenses were covered by their classmates in the Student Branch, by members of the Northern New Jersey Branch of the APhA, by the Essex County Pharmaceutical Association, and by the Pharmacist's Guild. Mr. Schuster's paper dealt with the action of soluble and lozenge forms of Tyrothricin on oral bacteria. Mr. Schuster and Mr. Comerçi are among five graduating seniors who have been admitted to medical schools.—Two other students are going to pursue graduate studies in pharmacology at the Medical College of Virginia and the University of Michigan.—Dr. Morton J. Rodman presented a paper on "Potentially Poisonous Household Products" before the American Medical Association at the Atlantic City meeting in June. During the last quarter he has had published articles in several scientific and professional journals.—Dr. Jack E. Little, professor of agriculture biochemistry at the University of Vermont and State Agricultural College, and the son of Dr. and Mrs. Ernst Little of Rutgers, has received a \$33,600 grant from the Atomic Energy Commission for research with radioisotopes and antibiotics in plant growth control. The funds will be used to finance graduate students and technicians and purchase equipment necessary for the research program.

**Medical College of South Carolina.**—Two students in the senior class were graduated with honors and three were given prizes for excellence in scholarship.—The Medical College teaching hospital which cost 12 million dollars and has 450 beds, was dedicated on May 10.—The School of Nursing building is now under construction.—Four Ph.D.'s and three M.S.'s, in Medical Science were conferred at the June commencement.

**University of South Carolina.**—The South Carolina Academy of Science held its annual meeting at the College on April 2. Two faculty members of the School of Pharmacy presented papers at the meeting. Dr. James A. Campbell gave the results of "A Study of the Effects of Pork-rich Diets Upon the Normal Blood Pressure", and Dr. J. M. Plaxco, Jr., reported on "The Stability of Bacitracin in Ointments". Wade A. Carter, senior pharmacy student was recently elected to Phi



Beta Kappa Honorary Society. Seven new members have been initiated by Rho Chi.—On Awards Day, seven students were awarded prizes for excellence in scholarship.

**South Dakota State College.**—Mr. Norval E. Webb has taken a leave of absence in order to pursue work leading to the doctorate at Purdue University.—Dr. Winthrop Lange, who holds the doctorate in pharmaceutical chemistry from the University of Wisconsin, will join the faculty in September.—Dr. Guilford C. Cross has been chosen for the second time as one of the five "Outstanding Teachers" at the State College.—Three pharmacy students, and one faculty member, Prof. Clark T. Eidsmoe, have been elected to Phi Kappa Phi.—Dr. Kenneth Redman is president of the local chapter of Phi Kappa Phi for 1955-56.—Three awards were given for excellence of scholarship and two were graduated with "High Honor" and one with "Honor".—Sheldon D. Murphy has been awarded an assistantship and a scholarship and will work for the doctorate in the Department of Pharmacology at the University of Chicago.

**Southern College of Pharmacy.**—Several members of the staff and the senior students attended the annual convention of the Georgia Pharmaceutical Association in Augusta, April 18-20. Dr. O. M. Littlejohn took part in a panel discussion on "Everyday Problems in Pharmaceutical Practice". The students prepared a highly interesting display on "Radioactive Isotopes" and presented a skit on "What's New in the USP".—Sixteen local pharmacists registered for the second annual short course on "Recent Advances in Dispensing" held at the College on March 31, and April 4 and 6.—Mrs. Martha Jane K. Zachert, librarian at the College, had a paper on "Techniques for Reorganizing the Catalog of the Special Library" in the January issue of the **Journal of Cataloging and Classification**, and "Threefold Library Teaching Plans" in the April issue of the **Bulletin of the Medical Library Association**.—Delewater and Co., Inc., manufacturers of store equipment and fixtures, have established a Junior Scholarship Award to consist of the payment of the fees for the entire senior year. The award is given to the junior that has the highest scholastic average. The Company also entertained the seniors, the faculty, and officers of the Alumni Association at a luncheon at the plant on May 19. Dr. Wei-Chin Liu, who is returning to China, with his family, was the guest of honor on this occasion and was presented with a mortar and pestle carved from native Georgia walnut to take back to his native home. The luncheon was followed by a tour of the plant.—On May 13, Kappa Psi held their annual banquet in honor of Dr. Liu and on May 27, Phi Delta Chi, at their annual Founder's Day Banquet, gave honorary membership to Dr. Liu.—Alpha Rho Chapter of Phi Delta Chi tied with Alpha Pi of the University of Utah for second place in the National Pharmacy Week contest.—On April 23, the Gamma Psi Chapter of Kappa Psi was host to the Province III Assembly. Dr. Milton Neuroth,

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Second Grand Vice President of the fraternity was guest speaker. His subject was "What a Fraternity Means to an Individual and What Benefits One Received from Belonging". Thirty-one seniors were graduated at the June commencement.

**Southwestern State College, Oklahoma.**—Playing an important part in the first district science fair for public school students in western Oklahoma were several members of the School of Pharmacy faculty. The fair was highly successful, drawing 107 exhibits, 25 of which qualified for the state science fair.—Dr. Robert W. Kleinschmidt of Stoneham, Massachusetts, was the speaker at a meeting of the Oklahoma Section of the American Chemical Society which was held on the Southwestern campus on March 21. He discussed the possibilities of producing fresh water from sea water.—Martin E. Hamner, who will complete requirements for the doctorate at the University of Colorado in August will be employed as associate professor at Southwestern, taking the place of Lawrence McArthur.—Most of the faculty and 8 seniors attended the State Association meeting at Oklahoma City in April—Philip Southall, a sophomore pharmacy student, has been elected treasurer of the Oklahoma College and University Student Government Association which includes in its membership all the major state institutions of higher education. He is also a member of the Southwestern Student Council.—Walter Cousins, Jr., editor of the Southern Pharmaceutical Journal, was the guest speaker at the annual banquet of the Student Branch, at which Dean Strother presented the awards to "outstanding" senior students.—Dr. Charles Schwartz spoke in May before the senior nursing students at the Oklahoma General Hospital in Clinton. His topic was "Care and Handling of Drugs in a Hospital".

**St. Johns University.**—A recent report by the Very Rev. John A. Flynn, C.M., president of the University, calls attention to the fact that although the College of Pharmacy is only 25 years of age, it ranks eighth in enrollment figures among the schools of pharmacy in the nation. Although there has been a drop in undergraduate registration in our schools the last few years, the graduate registration has increased by 40% which would seem to indicate that more students are entering the fields of research, teaching, and manufacturing. A \$2,500 grant has been awarded to St. Johns University by Chas. Pfizer and Company of Brooklyn, N. Y. The grant has been made to aid the study of formulation problems of Vitamin B12. The project will be directed by Dr. Andrew Bartilucci, assistant dean of the College of Pharmacy.

**St. Louis College of Pharmacy and Allied Sciences.**—Thirty-eight seniors received the bachelor's degree, three the master's, and one, Louis M. Roeg of Merck and Co., an honorary Doctor of Science, at the 92nd commencement on June 16.—Dr. Arthur G. Zupko, who has been chairman of the department of pharmacology for the past six

years, is leaving the staff to become assistant dean of the Brooklyn College of Pharmacy.—Installation ceremonies for Beta Kappa Chapter of the Rho Chi Society were held on May 25 with 17 charter members. Dr. George L. Webster of the University of Illinois was the installing officer.—Jack L. Gross, instructor in pharmaceutical administration, has been awarded an American Foundation for Pharmaceutical Education Fellowship for further study at Washington University.—On June 1, Prof. George F. Reddish presented a paper entitled, "Antiseptics in the Hospital Pharmacy", at the 75th anniversary meeting of the Wisconsin Pharmaceutical Association.—Fifty-six seniors and juniors were guests of Parke-Davis and Co., in Detroit in April.

**Temple University.**—Paul H. Lambert, a third year medical student at McGill University, represented McGill at the Students International Clinical Conference held August 1-13, in Stockholm, Uppsala and Gothenburg, Sweden. The Conference is sponsored by the International Federation of Medical Student Associations. Mr. Lambert received the B.S. in Pharmacy degree from the Rhode Island College of Pharmacy and Allied Sciences in 1950. He received the master's from Temple, where he majored in bacteriology and immunology, was the recipient of the Selman Wakeman Fellowship, the E. R. Squibb and Co. advance fellowship, a Temple University teaching fellowship, a Rackman Fellowship from the University of Michigan, and an exchange research fellowship from the Pasteur Institute in Paris.

**University of Texas.**—Seventy-eight senior students participated in the annual Easter inspection tour of manufacturing firms. This year the group visited the Parke-Davis Company, the Abbott Laboratories and the Walgreen Drug Company in Chicago.—Dr. J. E. Davis presented several scientific papers before the recent meeting of the Federation of Experimental Biological Sciences in San Francisco.—Dr. W. R. Lloyd addressed a meeting of the Southwest Texas Pharmaceutical Association in Del Rio on April 17.—Dr. C. O. Wilson spoke on trends in medication and Mr. Wallace Guess discussed prescription pricing before the Pharmacy Management Conference in Waco on April 14.—Mrs. E. J. W. Hall has been elected a Fellow by the American College of Apothecaries.—Thirteen students and Prof. J. E. Davis were initiated by Rho Chi in April.—A graduate chapter of Kappa Psi was installed with 15 members in April by Dr. Ralph Bienfang of the University of Oklahoma.—Dr. C. C. Albers was the installing officer of the recently organized chapter of Rho Chi at the University of Arkansas.—Thirty-nine seniors and one graduate student received degrees at the June commencement.—Dr. C. C. Albers attended a meeting of the Board of Higher Education of the United Lutheran Church in America, held in Washington, D. C., June 14-15.—Enrolled in the summer session are 180 undergraduate and 8 graduate students.—Dr. R. D. Small of the College of Pharmacy, the University of Nebraska, is teaching inorganic pharmaceutical chemistry the first term of the summer session, taking the

place of Dr. C. O. Wilson who with his family is vacationing in Washington State. Dr. David M. Stuart of the University of Wisconsin will teach the courses in organic pharmaceutical chemistry. He will remain on the staff the fall term also as a replacement for Dr. R. F. Doerge who has resigned in order to accept a position with the Smith, Kline, and French Company.

**Texas Southern University.**—The school year ended by many activities on the part of the students. The junior and senior classes visited the local wholesale drug distributors—McKesson and Robbins and Southwestern Drugs—and the annual field day was held at Kendleton, Texas. The junior class honored the graduating seniors, four in number, at a formal dinner in the Student Union Building. The senior class established the Pharmacy Educational Tour Fund to be used by future classes to undertake trips to out-of-state drug houses with the condition that the fund must not be exhausted by any one class.—Members of the faculty are away for the summer pursuing further study.

**University of Utah.**—The Student Branch under the guidance of Dean L. David Hiner and Dr. Ewart A. Swinyard, has instituted a program which should be of great value to the students and the profession. The program calls for an annual student convention modeled exactly after the pattern of the organization and convention of the APhA. The purpose is to give the student a better knowledge and a familiarity with the objectives of the national professional organization. The first convention was held in the Hotel Utah on May 19, and lasted one day. Mr. John B. Heinz, of Salt Lake City and president of the APhA, was Honorary Convention Chairman. The program was so arranged that there was a minimum of conflicts between the presentations by the five sections. A mimeographed copy of the program and abstracts of all the papers was made and is available for anyone wishing a copy by addressing the Dean of the College of Pharmacy.—The annual Student Branch dinner was held on the evening of May 19. On this occasion five awards were made to students for academic excellence. The senior class gift was presented to the College and gifts were presented to Dean Hiner, Dr. Swinyard and Shirlee Brown for their cooperation and many contributions to student activities.—A large delegation attended the Western Regional Conference of Phi Delta Chi at San Francisco on April 15-16. Grand President Ivan W. Rowland of Idaho State College was in attendance and reported on the national problems of the fraternity, future plans of Phi Delta Chi, and other subjects of interest to the delegates. Phi Delta Chi's window display during National Pharmacy Week tied for second place in the contest.—The Beta Epsilon Chapter of the Rho Chi Society was installed with 17 charter members on April 18. Dean Ivan W. Rowland of Idaho State College was the installing officer.

**Medical College of Virginia.**—The Virginia Society of Hospital Pharmacists was organized in Richmond recently, with Dr. George M. Archambault as chief speaker. Mr. Robert A. Anderson, president, and

Miss Mary Ann Magee, secretary, are both graduates of the School of Pharmacy.—Dean R. Blackwell Smith, Jr., and Mr. C. P. Cardwell, M.C.V. hospital director, attended the meeting of the American Medical Association at Atlantic City. Dr. Smith has recently been appointed chairman of the Subcommittee on Toxicology, Food Protection Committee, of the National Research Council.—Constantine Hampers, an alumnus of the University of Pittsburgh College of Pharmacy, has been accepted as a graduate student in hospital pharmacy for the next academic year.

**State College of Washington.**—Dr. Melvin R. Gibson was appointed Editor of the American Journal of Pharmaceutical Education, effective January 1, 1956.—Drs. White Gibson, Martin and Bhatia have received grants of \$1,550, \$1,100, \$2,365, and \$1,670, respectively, for the year 1955-56 under State Initiative 171 for Medical and Biological Research.—Mr. William Johnsen, instructor in pharmacy at the University of Wyoming, is pursuing graduate work at the College during the summer on an AFPE Fellowship.—Dr. E. Ray Hammarlund has been appointed chairman of the committee for the Washington Post Graduate Seminar for Pharmacists for the coming year. Dr. Melvin R. Gibson has been advanced in rank to a full professorship in pharmacognosy. Dr. V. N. Bhatia has been elected a member at large of the Executive Committee of the local chapter of the AAUP.

**University of Wisconsin.**—Jack R. Arndt and Jerome A. Reinstein, graduate students, won the Oscar Rennebohm award for excellence as graduate teaching assistants. Both received certificates and checks for \$300 and both will use the funds to further their work toward the doctorate in one of the specialized fields in pharmacy.—David M. Stewart has been granted the \$1,000 Lunsford Richardson Pharmacy Award for a scientific paper reporting his isolation of a new alkaloid from the *Sabadilla* plant. Another graduate student, Gordon A. Groves, received a check for \$100 as honorable mention in the competition. Mr. Groves is on leave from his post as assistant professor at the University of British Columbia. Both award winners are candidates for the doctorate. The Lunsford Richardson awards are sponsored by the Vick Chemical Company and were given this year for the first time. Roy Comstock, of the William S. Merrill Co., a Vick subsidiary, presented an additional \$1,000 to the School of Pharmacy in recognition of its part in the training of the Richardson Award winners.—The Wisconsin Pharmacists met on the University campus on May 31-June 2, to celebrate the diamond anniversary of the Wisconsin Pharmaceutical Association. The convention was sponsored by the Extension Division under the direction of Dr. William S. Apple, the School of Pharmacy and the State Association. The program featured nationally known personalities in the pharmaceutical world. The sessions covered the fields of general pharmacy, hospital pharmacy, and animal health pharmacy. The major objective was to attempt to evaluate the past and seriously plan the direction in which pharma-

cists may be headed professionally.—Two resolutions of particular interest passed in the closing business session dealt with ethics and the intern training program. The Wisconsin Pharmaceutical Association made it unethical for its members to advertise in any way that tends to mislead the public or to indicate that a particular pharmacist is more competent or will provide professional services more cheaply than his colleagues. A second resolution established a special committee, representing the State Board of Pharmacy, the State Association, and the School of Pharmacy, to review the pharmacy intern program and make recommendations concerning its operation. The State Association elected Dr. William S. Apple as vice president.—New research has been opened under contract with Armed Services Procurement, and the contract with the Army Chemical Corps has been renewed. A number of rooms have been remodeled to provide expanded laboratory facilities for graduate students.—Dr. Edward E. Smissman, formerly of the University of Illinois, has joined the pharmacy staff as assistant professor.—Dr. Glenn Sonnedecker has been selected as a Guggenheim Fellow for 1955-56 to conduct historical research in Europe. He will also attend the International Pharmaceutical Federation in London in September. Dr. Sonnedecker will sail with his family late in August. Dr. A. P. Leinberger has been promoted to assistant professor rank. Dr. George E. Osborne returns to the pharmacy faculty at the University of Utah after a post doctoral year in the history of pharmacy and related fields as a Fellow of the Ford Foundation.—Drs. Takeru Higuchi and Glenn Sonnedecker served as members of the teaching staff at the 1955 Teachers' Seminar held on the campus of Butler University, Indianapolis.

**University of Wyoming.**—Dr. Theodore O. King attended the 39th annual meeting of the Federation of American Societies for Experimental Biology in San Francisco from April 10-15 and presented a paper on "The Action of Selective Anti-cholinesterase Compounds on Isolated Intestinal Segments" before a section of the American Society for Pharmacology and Experimental Therapeutics. Dr. King has been granted a leave of absence for the academic year 1955-56 to accept a Fulbright Fellowship in pharmacology awarded to him for study at the University of Belgium under Dr. Heymans. Dr. and Mrs. King will leave for Europe in August and will visit various places in England and the Continent before going to Belgium. Dean David W. O'Day and several members of the faculty attended the May meeting of the southeastern Wyoming Pharmacal Association in Torrington where the Dean gave a report of the Miami Beach meetings.—Dr. Raymond J. Kahl, assistant professor of pharmaceutical chemistry, was recently made an honorary member of Gamma Sigma Epsilon, honorary chemical fraternity. Dr. Kahl received the doctorate from the University of Washington in June. His thesis was concerned with the preparation of a group of organic compounds with possible sympathomimetic action.



## **Miscellaneous Items of Interest**

### **Attention All Pharmacology, Physiology and Zoology Teachers Colleges of Pharmacy**

The AACP during its recent meeting in Miami Beach, Florida voted to extend the final date for the completion of entries in the Pharmacology Award. This award will now be made at the 1956 AACP meeting in Detroit, Michigan in April. Entries must be received by the Chairman of the Committee at least thirty days prior to the 1956 meeting.

Although there are many films available that fall in this class, the Committee is aware that excellent opportunities exist for the development of creative or original films illustrating pharmacological techniques, procedures, etc. In many of the existing films "the technique is often taken for granted and its full meaning omitted from the commercial film . . .". The Committee feels there may be people who are actually teaching in physiology and zoology who are interested in the Award and who should be eligible for the competition. In such instances, the Committee wishes to emphasize that such individuals must be on the instructional staff of the College of Pharmacy which they represent.

The details of this year's program and contest rules are undoubtedly in your files. The contest rules were published in the *American Journal of Pharmaceutical Education*, **16**, No. 4, 582 (1952).

It is hoped that teachers who found it difficult to compete last year because of the short time available will now find it possible to do so. For further details kindly communicate with Chairman Youngken, College of Pharmacy, University of Washington, Seattle, Washington.

The AACP Committee on  
Audio-Visual Education  
H. W. Youngken, Jr., Chairman

### **Announcement of 1955 Meeting of the AAAS Section Np (Pharmacy) and Request for Titles of Papers**

You or your colleagues are cordially invited to present a paper at the Pharmacy Section Meeting of the American Association for the Advancement of Science and participating affiliated and associated societies to be held in Atlanta, Georgia, the week of December 26.

The Pharmacy Section Meeting will start December 27 at 8 P.M. with a Symposium, "The Application of Nucleonics to the Health Professions" to be held in the Henry Grady, Dixie Ballroom and will be followed by contributed paper sessions, including a special session

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dealing with Hospital Pharmacy, on December 28, 29 and 30. A Symposium, "Hazardous Household Chemicals and Agricultural Poisons" will be held December 29 at 8 P.M.

Authors who wish to present papers before the contributed paper sessions are requested to send in titles of papers **as soon as possible** to John E. Christian, Secretary School of Pharmacy, Purdue University, Lafayette, Indiana. All titles for inclusion in the printed program must be in by **September 26**.

Submitted papers should require not more than 20 minutes for presentation. An original and one copy of the paper in form for publication should be turned in at the time of the meeting and will be submitted to the Journal of the American Pharmaceutical Association, unless release for publication elsewhere is requested.

This year's AAAS Meeting is in the "Deep South" at Atlanta. It can help the South tremendously **provided the program is topflight with many southern scientists both participating and attending**.

For further information on housing see **Science** or **Scientific Monthly**, beginning in late July issues. The Henry Grady is the Pharmacy Section headquarters hotel.

John E. Christian, Secretary

## New Books

**United States Pharmacopeia XV.**—United States Pharmacopeial Convention, Inc., Publisher. 1230 pages. 786 pages of monographs. 313 pages of general tests and reagents. 838 monographs. 242 new admissions. Mack Publishing Co., Easton, Pa., Distributor. Price, \$10, domestic; \$10.50, foreign.

One hundred sixty monographs were deleted from U.S.P. XIV. U.S.P. XV becomes official December 15, 1955. The Revision follows the general pattern which is so well known and repetition is scarcely needed here. Sufficient to say that its contents in every respect has been brought up in harmony with the best pharmaceutical and medical practice and will undoubtedly maintain its reputation as one of the outstanding codes of pharmaceutical standards of the world.—R.A.L.

**Polypeptides Which Stimulate Plain Muscle**, Edited by J. H. Goddum, F.R.S., Sc D., M.R.C.S., M.R.C.P., Professor of Pharmacology and Materia Medica, University of Edinburgh. 1955. 140 pages. E. and S. Livingstone LTD., Edinburgh and London: the Williams and Wilkins Co., Baltimore. Price \$3.75.

This book is based upon a symposium which was held in Montreal in September 1953 and which was participated in by fifteen outstanding specialists representing eight nations on three continents and the British Isles. The substances discussed were obtained from tissues and were those which stimulate plain muscle in very low concentrations. Most of them, but not all, are polypeptides. Well known sub-

stances such as histamine and adrenaline are excluded from the discussions except insofar as the knowledge about well known substances may be of value in the study of the newer and less known substances, whatever their composition. In the study of new substances by investigation, there is, of course, a divergence of opinion. The value of this book lies in the fact that the Editor has brought together views of investigators in this fascinating field.—R.A.L.

**Word Pictures**, by Wayland Delano Wilcox. 1954. 147 pages. Published by the Vantage Press, Inc., New York. Price \$3.00.

Everyone will remember with pleasure the late lovable Dr. Wayland Delano Wilcox, who annually presented contributions on the historical pharmacy of the Shakespearian and Dickens periods before sessions of the American Institute of the History of Pharmacy and the Historical Section of the APhA. For many years, as a representative of Lea and Febiger, he attended the national pharmaceutical meetings where he won the respect and affection of all who knew him. Lately a copy of his collected poems, under the title **Word Pictures**, has come to the Editor's desk. For those who knew Dr. Wilcox it will be a pleasure, and for those who did not, it will be a delightful experience to be led by these pictures. They include nature scenes, beginning with sunset at the Grand Canyon of the Colorado, experiences of the seasons and holidays, a touch of his philosophies of life, his interest in the arts, amusements and sports, pictures of New England, travel, American and Canadian cities and ends with his hobbies, —iceboating and a cruise on the Jennie Lee. His hope that these **Word Pictures**, which describe what he saw and felt during a long and productive life, would bring pleasure and satisfaction to others who read them, will certainly be fulfilled.—R.A.L.

**The Management of Obstetric Difficulties**, by Paul Titus, revised by J. Robert Wilson, M.D., M.S., Professor of Obstetrics and Gynecology, Temple University School of Medicine. 1955. Fifth Edition. 737 pages. 348 text illustrations and one plate in color. The C. V. Mosby Company. Price \$12.50.

Clearly written and remarkably and clarifyingly illustrated. While it might seem that such a text would have little value to a pharmacist, it has a distinct place in a pharmaceutical library. If the pharmacist is to be an intelligent adviser to his clientele, it behooves him to know many things about the problems of the related health profession. For example, a knowledge of the diet and care of prospective mothers and of the newborn infant are problems with which the practicing pharmacist should have some familiarity.—R.A.L.

**Introduction to Chemical Pharmacology**, by R. B. Barlow, Research Fellow, Yale University School of Medicine, formerly I.C.I. Research Fellow, University of Glasgow, with a Foreword by H. R. Ing, F.R.S. Reader in Chemical Pharmacology, University of Oxford. 1955. 343 pages. 53 illustrations. 86 tables. John Wiley and Sons, Inc. Price \$6.25.

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The subject matter of this book is the structure - action relationship of drugs, or to use an older expression, the relationship between chemical constitution and physiological action. This has long been a controversial subject between chemists and pharmacologists and Dr. Ing, in his Foreword says: "What is obviously needed is a much closer liaison between the chemist and the pharmacologist; but if this liaison is to be achieved, the chemist must try to understand the nature of the problems which face the pharmacologist, and the pharmacologist must try to understand how the chemist thinks about the compounds that he makes." It would seem the present text would be very helpful in bringing about the understanding.—R.A.L.

**From Potions to Pills to Penicillin**, by Laurence D. Lockie, Professor of Pharmacy, University of Buffalo, 1954. 119 pages. Edwards Brothers, Inc. Ann Arbor.

In this little volume the author has given a connected story about the development of pharmacy from the Neolithic Age in Europe (Primitive Pharmacy) down to the present antibiotic era. The objective is to give the history of the profession to the student in a form he can grasp and at the same time stimulate him to search further for the accomplishments of his ancient and honorable profession, and by so doing develop professional pride and dignity, and an intellectual and moral responsibility for good citizenship. The volume includes a chronology of pharmaceutical events and a bibliography for student guidance.—R.A.L.

**Rx for Healthier Children**, by Health Information Foundation. A 22 page illustrated booklet, available at the Foundation headquarters for the asking, 420 Lexington Avenue, New York 17, N.Y.

The foreward states: "Health Information Foundation was led to finance the study of school child health reported in this booklet because our national record of action to correct impairments found in school physical examinations is not good. Little has been done to improve this situation, although the correction of remedial impairments during childhood years is one of our most universal health problems and has a crucial bearing on our future happiness and welfare as individuals and as a nation. Aware of these facts, HIF made a grant toward the total cost of a survey in cooperation with Pennsylvania State University, to determine how cooperative efforts of the public schools, physicians, parents and community organizations could be centered on improving the situation. The booklet reports what was accomplished in fifteen Pennsylvania communities and discusses the problem in its broader national setting. It also offers some suggestions which it hoped will be useful to responsible groups of people in a position to stimulate in their respective communities."

**Rx for Healthier Children** indicates very definitely: what the schools can do; what physicians can do; what parents can do; and what community organizations can do for the production of healthier children.—R.A.L.

**PRxchange.**—A four page news letter of public relations ideas for schools of pharmacy published on appropriate occasions by the AACP and sponsored by the AACP - ACPRA Joint Committee on Public Relations. Three numbers have appeared, January, February, and April, 1955.

Send news items, comments, suggestions, and criticisms to William L. Blockstein, University of Pittsburgh, School of Pharmacy, Pittsburgh

**The International Pharmaceutical Students' Federation** has issued an invitation to young American pharmacists and pharmacy students to participate in a plan to give pharmacists first hand experience in the way of life and the pharmacy of other lands. Through its Committee on Student Exchange, the Federation will help arrange for young Americans to go to a foreign land to work or observe in a pharmacy. Pharmacists who have graduated within the past seven years, as well as pharmacy students or recent graduates overseas who are eager to know America better, and pharmacists who would be interested in being host to one of these young colleagues for one to several months, are being sought. The host pharmacist would be expected to pay a salary at least covering living expenses of the visitor-employee of his choice. The young person going overseas ordinarily would have to provide his own passage fare. Exact arrangements are worked out by the two parties concerned, once contact is established. The exchange program has been developed with the idea that it will not only offer a stimulus to the profession and participating individuals, but in its own way will encourage better international understanding. Pharmacists or young people interested in the program may obtain further information and application blanks from Dr. Jerome Reinstein, U. S. Liaison Secretary, International Pharmaceutical Students' Federation School of Pharmacy, University of Wisconsin, Madison 6, Wisconsin.

**The Committee on Toxicology of the American Medical Association** states that the thousands of chemical products developed to make life simpler may only complicate it unless used with care and intelligence. It has also said that there are today about a quarter of a million brand name chemical products which may be used in the home, farming, and industry, all of which may be useful but when handled improperly they become killers, cripplers, and destroyers of property. Understanding the uses and the potential dangers of the wealth of products available is necessary to prevent the estimated 3,300 accidental poison deaths which occur annually from the misuse of chemicals. As a part of the committee's campaign to spread information about these products and their hazards, it will sponsor a symposium on health hazards of chemicals on December 29, during the annual meeting of the AAAS in Atlanta, Georgia. Dr. Bernard Conley, secretary of the AMA Committee on Pesticides, which is co-sponsoring the symposium, will be moderator of the discussion and the program will be presented by outstanding experts representing the Georgia Department of Public Health; the U.S. Public Health Service; and the Federal Food and Drug Administration.

## INSTITUTIONS HOLDING MEMBERSHIP IN THE AMERICAN ASSOCIATION OF COLLEGES OF PHARMACY

### Massachusetts

**Massachusetts College of Pharmacy**  
(1900)  
179 Longwood Avenue  
Boston 15  
Dean Howard C. Newton  
**New England College of Pharmacy**  
(1932)  
70-72 Mount Vernon Street  
Boston 8  
Dean Constantine N. Meriano

### Michigan

**College of Pharmacy**  
**Detroit Institute of Technology** (1923)  
2020 Witherell Street  
Detroit 26  
Dean Curtis H. Waldon  
**College of Pharmacy**  
**Ferris Institute** (1938)  
Big Rapids  
Dean Ralph M. Wilson  
**College of Pharmacy**  
**University of Michigan** (1900)  
Ann Arbor  
Dean Tom D. Rowe  
**College of Pharmacy**  
**Wayne University** (1925)  
4841 Cass Avenue  
Detroit 1  
Dean Stephen Wilson

### Minnesota

**College of Pharmacy**  
**University of Minnesota** (1901)  
Minneapolis 14  
Dean Charles H. Rogers

### Mississippi

**School of Pharmacy**  
**University of Mississippi** (1913)  
University  
Dean E. L. Hammond

### Missouri

**St. Louis College of Pharmacy and**  
**Allied Sciences** (1900)  
4588 Parkview Place  
St. Louis 10  
Dean A. F. Schlichting  
**School of Pharmacy**  
**University of Kansas City** (1918)  
5100 Rockhill Road  
Kansas City 10  
Dean Leslie L. Eisenbrandt

### Montana

**School of Pharmacy**  
**Montana State University** (1917)  
Missoula  
Dean Jack E. Orr

### Nebraska

**College of Pharmacy**  
**Creighton University** (1916)  
Fourteenth and Davenport Streets  
Omaha 2  
Dean William A. Jarrett  
**College of Pharmacy**  
**University of Nebraska** (1913)  
Lincoln 8  
Dean Joseph B. Burt

### New Jersey

**College of Pharmacy**  
**Rutgers University** (1923)  
The State University of New Jersey  
1 Lincoln Avenue  
Newark 4  
Dean Roy A. Bowers

### New Mexico

**College of Pharmacy**  
**University of New Mexico** (1932)  
Albuquerque  
Dean Elmon L. Cataline

### New York

**College of Pharmacy of the**  
**City of New York**  
**Columbia University** (1939)  
113-119 West 68th Street  
New York 23  
Dean E. E. Leuallen  
**College of Pharmacy**  
**Fordham University** (1939)  
New York 58  
Dean James H. Kidder  
**Brooklyn College of Pharmacy**  
**Long Island University** (1939)  
600 Lafayette Avenue  
Brooklyn 16  
Dean Hugo H. Schaefer  
**College of Pharmacy**  
**St. John's University** (1951)  
96 Schermerhorn Street  
Brooklyn  
Dean John L. Dandrea  
**Albany College of Pharmacy** (1945)  
**Union University**  
106 New Scotland Avenue  
Albany 3  
Dean Francis J. O'Brien  
**School of Pharmacy**  
**University of Buffalo** (1939)  
Buffalo 14  
Dean Daniel H. Murray

### North Carolina

**School of Pharmacy**  
**University of North Carolina** (1917)  
Chapel Hill  
Dean E. A. Brecht

### North Dakota

**School of Pharmacy**  
**North Dakota Agricultural College** (1922)  
Fargo  
Dean Clifton E. Miller

### Ohio

**College of Pharmacy**  
**University of Cincinnati** (1917)  
Cincinnati 21  
Dean J. F. Kowalewski  
**College of Pharmacy**  
**Ohio Northern University** (1925)  
Ada  
Dean Albert C. Smith  
**College of Pharmacy**  
**Ohio State University** (1900)  
Columbus 10  
Dean B. V. Christensen  
**College of Pharmacy**  
**University of Toledo** (1911)  
2801 West Bancroft Street  
Toledo 6  
Dean Charles H. Larwood



# INSTITUTIONS HOLDING MEMBERSHIP IN THE AMERICAN ASSOCIATION OF COLLEGES OF PHARMACY

## Oklahoma

School of Pharmacy  
Southwestern State College (1961)  
Weatherford  
Dean W. D. Strother

School of Pharmacy  
University of Oklahoma (1906)  
Norman  
Dean Ralph W. Clark

## Oregon

School of Pharmacy  
Oregon State College (1915)  
Corvallis  
Dean George E. Crossen

## Pennsylvania

School of Pharmacy  
Duquesne University (1927)  
901 Vickroy Street  
Pittsburgh 19  
Dean John G. Adams

Philadelphia College of Pharmacy  
and Science (1909)  
43rd St., Kingessing & Woodland Aves.  
Philadelphia 4  
Dean Ivor Griffith

School of Pharmacy  
Temple University (1928)  
3223 North Broad Street  
Philadelphia 40  
Dean Joseph B. Sprowls

School of Pharmacy  
University of Pittsburgh (1906)  
1431 Boulevard of the Allies  
Pittsburgh 19  
Dean Edward C. Reif

## Philippine Islands

College of Pharmacy  
University of the Philippines (1917)  
Quezon City  
Dean Patrocinio Valenzuela

## Puerto Rico

College of Pharmacy  
University of Puerto Rico (1936)  
Rio Piedras  
Dean Luis Torres-Diaz

## Rhode Island

Rhode Island College of Pharmacy  
and Allied Sciences (1926)  
235 Benefit Street  
Providence  
Dean W. Henry Rivard

## South Carolina

School of Pharmacy  
Medical College of South Carolina (1940)  
16 Lucas Street  
Charleston 16  
Dean William A. Prout

School of Pharmacy  
University of South Carolina (1928)  
Columbia 19  
(Acting) Dean Robert W. Morrison

## South Dakota

Division of Pharmacy  
South Dakota State College of  
Agriculture & Mechanic Arts (1906)  
Brookings  
Dean Floyd J. LeBlanc

## Tennessee

School of Pharmacy  
University of Tennessee (1914)  
874 Union Avenue  
Memphis 3  
Dean Karl J. Goldner

## Texas

School of Pharmacy  
Texas Southern University (1953)  
3201 Wheeler Street  
Houston 4  
Dean Hurd M. Jones

College of Pharmacy  
University of Houston (1962)  
3501 Cullen Boulevard  
Houston 4  
Dean N. M. Ferguson

College of Pharmacy  
University of Texas (1926)  
Austin 12  
Dean Henry M. Burlage

## Utah

College of Pharmacy  
University of Utah (1961)  
Salt Lake City 1  
Dean L. David Hiner

## Virginia

School of Pharmacy  
Medical College of Virginia (1908)  
Richmond 19  
Dean R. B. Smith, Jr.

## Washington

School of Pharmacy  
State College of Washington (1913)  
Pullman  
Dean Haakon Bang

College of Pharmacy  
University of Washington (1903)  
Seattle 5  
Dean Forest J. Goodrich

## West Virginia

College of Pharmacy  
West Virginia University (1929)  
Morgantown  
Dean J. Lester Hayman

## Wisconsin

School of Pharmacy  
University of Wisconsin (1900)  
Madison 6  
Dean A. H. Uhl

## Wyoming

College of Pharmacy  
University of Wyoming (1961)  
Laramie  
Dean David W. O'Day

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## FELLOWSHIP IN PHARMACY

To meet the demonstrated need for trained teachers and researchers in the field of pharmacy, the American Foundation for Pharmaceutical Education announces a limited number of Fellowships for students seeking graduate degrees in pharmaceutical subjects.

These Fellowships are open to students (men or women) qualified for registration in approved graduate schools (or colleges) for one or more of the following major fields:

### PHARMACY

### PHARMACEUTICAL CHEMISTRY

### PHARMACOLOGY

### PHARMACOGNOSY

### PHARMACY ADMINISTRATION

(or closely related subjects)

The Foundation offers Teaching Fellowships in Business Administration, in cooperation with colleges of pharmacy. Deans have full information on those awards. Applications must be made jointly by individuals and their colleges.

Pfeiffer Memorial Postdoctoral Research Fellowships are available to college of pharmacy faculty members.

For application forms or further information write to  
The Secretary, W. Paul Briggs

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1507 M Street, N. W.

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